NOTICE OF PROPOSED AMENDMENT (NPA) NO 2008-17B

**DRAFT OPINION OF THE EUROPEAN AVIATION SAFETY AGENCY,
FOR A COMMISSION REGULATION establishing the implementing rules for the licensing and medical certification of pilots
and**

**DRAFT DECISION OF THE EXECUTIVE DIRECTOR OF THE EUROPEAN AVIATION SAFETY AGENCY on
acceptable means of compliance and guidance material on the licensing and medical certification of pilots**

"Implementing Rules for Pilot Licensing"

B. Part-FCL

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SUBPART A

GENERAL REQUIREMENTS

FCL.001 Competent authority

For the purpose of this Part, the competent authority shall be the authority designated by the Member State to whom a person applies for the issuance of pilot licences or associated ratings or certificates.

FCL.005 Scope

This Part establishes the requirements for the issue of pilot licences and associated ratings and certificates and the conditions of their validity and use.

FCL.010 Definitions

For the purposes of this Part, the following definitions apply:

- 'Aerobatic flight' means an intentional manoeuvre involving an abrupt change in an aircraft's attitude, an abnormal attitude, or abnormal acceleration, not necessary for normal flight.
- 'Aeroplane' means an engine-driven fixed-wing aircraft heavier than air, that is supported in flight by the dynamic reaction of the air against its wings.
- 'Aeroplane required to be operated with a co-pilot' means a type of aeroplane that is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate.
- 'Airship' means a power-driven lighter-than-air aircraft, with the exception of hot-air airships, which, for the purposes of this Part, are included in the definition of balloon.
- 'Balloon' means a lighter than air aircraft that is not engine driven and sustains flight through the use of either gas or an airborne heater. For the purposes of this part, a hot-air airship, although engine driven, is also considered a balloon.
- 'Basic Instrument Training Device (BITD)' means a ground based training device which represents the student pilot's station of a class of aeroplanes. It may use screen based instrument panels and spring-loaded flight controls, providing a training platform for at least the procedural aspects of instrument flight. Each BITD shall comply with a specific BITD model and be a serial numbered unit.
- 'Category of aircraft' means a categorisation of aircraft according to specified basic characteristics, for example aeroplane, powered-lift, helicopter, airships, sailplane, free balloon.
- 'Class of aeroplane' means a categorisation of single-pilot aeroplanes not requiring a type rating, in accordance with the operational suitability certificate issued in accordance with Part -21.
- 'Class of balloon' means a categorisation of balloons taking into account the lifting means used to sustain flight.
- 'Competency' means a combination of skills, knowledge and attitude required to perform a task to the prescribed standard.

- 'Co-pilot' means a pilot operating other than as pilot-in-command, an aircraft for which more than one pilot is required, but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction for a licence or rating.
- 'Cross-Country' means a flight between a point of departure and a point of arrival following a pre–planned route using standard navigation procedures.
- 'Dual instruction time' means flight time or instrument ground time during which a person is receiving flight instruction from a properly authorised instructor.
- 'Full Flight Simulator (FFS)' means a full size replica of a specific type or make, model and series aircraft flight deck, including the assemblage of all equipment and computer programmes necessary to represent the aircraft in ground and flight operations, a visual system providing an out of the flight deck view, and a force cueing motion system.
- 'Flight time' means:
  - for aeroplanes, touring motor gliders and powered-lift, the total time from the moment an aircraft first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.
  - for helicopters, the total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.
  - for airships, the total time from the moment an airship is released from the mast for the purpose of taking off until the moment the airship finally comes to rest at the end of the flight, and is secured on the mast;
  - for sailplanes, the total time from the moment the sailplane commences the ground run in the process of taking off until the moment the sailplane finally comes to a rest at the end of flight;
  - for balloons, the total time from the moment the basket leaves the ground for the purpose of taking off until the moment it finally comes to a rest at the end of the flight.
- 'Flight time under Instrument Flight Rules (IFR)' means all flight time during which the aircraft is being operated under the Instrument Flight Rules.
- 'Flight Training Device (FTD)' means a full size replica of a specific aircraft type's instruments, equipment, panels and controls in an open flight deck area or an enclosed aircraft flight deck, including the assemblage of equipment and computer software programmes necessary to represent the aircraft in ground and flight conditions to the extent of the systems installed in the device. It does not require a force cueing motion or visual system.
- 'Flight and Navigation Procedures Trainer (FNPT)' means a training device which represents the flight deck or cockpit environment including the assemblage of equipment and computer programmes necessary to represent an aircraft type or class in flight operations to the extent that the systems appear to function as in an aircraft.
- 'Group of balloon' means a categorisation of balloons taking into account the size or capacity of the envelope.
- 'Helicopter' means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.
- 'Instrument flight time' means the time during which a pilot is controlling an aircraft in flight solely by reference to instruments.
- 'Instrument ground time' means the time during which a pilot is receiving instruction in simulated instrument flight in flight simulation training devices (FSTD).
- Multi-crew co-operation (MCC), means the functioning of the flight crew as a team of co-operating members led by the pilot-in-command.
- 'Multi-pilot aircraft'
  - In the case of aeroplanes, means aeroplanes certificated for operation with a minimum crew of at least two pilots.

- In the case of helicopters, airships and powered-lift aircraft, means a type of aircraft that is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate or equivalent document.

- 'Night' means the period between the end of evening civil twilight and the beginning of morning civil twilight, or such other period between sunset and sunrise as may be prescribed by the appropriate authority, as defined by the Member State.
- 'Pilot-in-command under supervision (PICUS)' means a co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command.
- 'Powered-lift aircraft' means any aircraft deriving vertical lift and in flight propulsion/lift from variable geometry rotors or engines/propulsive devices attached to or contained within the fuselage or wings.
- 'Powered sailplane' means an aircraft equipped with one or more engines having, with engines inoperative, the characteristics of a sailplane.
- 'Route sector' means a flight comprising take-off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.
- 'Sailplane' means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine.
- 'Single-pilot aircraft' means an aircraft certificated for operation by one pilot.
- 'Solo flight time' means flight time during which a student pilot is the sole occupant of an aircraft.
- 'Touring Motor Glider (TMG)' means a specific class of powered sailplane having an integrally mounted, non-retractable engine and a non-retractable propeller. It shall be capable of taking off and climbing under its own power according to its flight manual.
- 'Type of aircraft' means all aircraft of the same basic design including all modifications thereto except those which result in a change in handling or flight characteristics.

FCL.015 Application and issue of licences, ratings and certificates

(a) An application for the issue, revalidation or renewal of pilot licences and associated ratings and certificates shall be to the competent authority in a manner established by this authority. The application shall be accompanied by evidence that the applicant complies with the requirements for the issue, revalidation or renewal of the licence or certificate as well as associated ratings or endorsements, established in this Part and Part-Medical.

(b) Any limitation or extension of the privileges granted by a licence, rating or certificate shall be endorsed in the licence or certificate.

(c) A person shall not hold at any time more than one licence issued in accordance with this Part.

(d) An application for an amendment, revalidation or renewal of a pilot licence and associated ratings or certificates shall be made to the competent authority that issued the pilot licence, except when the pilot has requested a change of competent authority and a transfer of his records to that competent authority.

FCL.020 Student pilot

(a) A student pilot shall not fly solo unless authorised to do so by a flight instructor.

(b) Before his first solo flight, a student pilot shall be at least:

(1) in the case of aeroplanes, helicopters and airships, 16 years of age;

(2) in the case of sailplanes and balloons, 14 years of age.

FCL.025 Theoretical knowledge examinations for the issue of licences

(a) *Responsibilities of the applicant*

(1) Applicants shall take the entire set of examinations in one Member State.

(2) Applicants shall only take the examination when recommended by the approved training organisation responsible for their training, once they have completed the appropriate elements of the training course of theoretical knowledge instruction to a satisfactory standard.

(b) *Pass standards*

(1) A pass in an examination paper will be awarded to an applicant achieving at least 75% of the marks allocated to that paper. There is no penalty marking.

(2) Except when otherwise determined in this Part, an applicant has successfully completed the required theoretical knowledge examination for the appropriate pilot licence or rating when he/she has passed all of the required subjects within a period of 18 months counted from the end of the calendar month when the applicant first attempted an examination.

(3) If an applicant has failed to pass one of the examination papers within 4 attempts, or has failed to pass all papers within either six attempts or the period mentioned in paragraph (2), he/she shall re-take the complete set of examination papers.

Before re-taking the examinations, the applicant shall undertake further training at an approved training organisation. The extent and scope of the training needed shall be agreed between the training organisation and the competent authority, based on the needs of the applicant.

(c) *Validity period*

(1) The successful completion of the theoretical knowledge examinations will be valid:

(i) for the issue of a leisure pilot licence, a private pilot licence, a sailplane pilot licence or a balloon pilot licence, for a period of 24 months;

(ii) for the issue of a commercial pilot licence or instrument rating, for a period of 36 months;

(iii) the periods in (i) and (ii) shall be counted from the day when the pilot successfully completes the theoretical knowledge examination, in accordance with (b)(2).

(2) Provided that the applicant holds an instrument rating, the completion of the airline transport pilot licence theoretical knowledge examinations will remain valid for a period of 7 years from the last validity date of the instrument rating entered in the commercial pilot licence for the issuance of an airline transport pilot licence.

FCL.030 Practical skill test

(a) Before a skill test for the issue of a licence, rating or certificate is taken, the applicant shall have passed the required theoretical knowledge examination, except in the case of applicants undergoing a course of integrated flying training.

In any case, the theoretical knowledge instruction shall always have been completed before the skill tests are taken.

(b) Except for the issue of an airline transport pilot licence, the applicant for a skill test shall be recommended for the test by the organisation/person responsible for the training.

FCL.035 Crediting of flight time and theoretical knowledge

(a) *Crediting of flight time*

(1) Unless otherwise specified in this Part, flight time to be credited for a licence, rating or certificate shall have been flown in the same category of aircraft for which the licence or rating is sought.

(2) An applicant for a licence, rating or certificate shall be credited in full with all solo, dual instruction or pilot-in-command flight time towards the total flight time required for the licence, rating or certificate.

(3) *Flight time as co-pilot*

(i) Except where otherwise determined in this Part, the holder of a pilot licence, when acting as co-pilot, is entitled to be credited with all of the co-pilot time towards the total flight time required for a higher grade of pilot licence.

(ii) The holder of a pilot licence, when acting as co-pilot under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

(b) *Crediting of theoretical knowledge*

(1) An applicant having passed the theoretical knowledge examination for an airline transport pilot licence shall be credited with the theoretical knowledge requirements for the leisure pilot licence, the private pilot licence, the commercial pilot licence and the instrument rating in the same category of aircraft.

(2) An applicant having passed the theoretical knowledge examination for a commercial pilot licence shall be credited with the theoretical knowledge requirement for a leisure pilot licence or a private pilot licence in the same category of aircraft

(3) The holder of an instrument rating shall be fully credited towards the requirements for the theoretical knowledge instruction and examination for an instrument rating in another category of aircraft.

(4) The holder of a pilot licence shall be credited towards the requirements for theoretical knowledge instruction and examination for a licence in another category of aircraft in accordance with Appendix 1 to this Part.

This credit also applies to applicants for a pilot licence that have already successfully completed the theoretical knowledge examinations for the issue of that licence in another category of aircraft, as long as within the validity period specified in FCL.025 (c).

FCL.040 Exercise of the privileges of licences

The exercise of the privileges granted by a licence shall be dependent on the validity of the ratings contained therein, if applicable, and of the medical certificate.

FCL.045 Obligation to carry and present documents

(a) A valid licence and a valid medical certificate shall always be carried by the pilot when exercising the privileges of the licence.

(b) The pilot shall also carry a personal identification document containing his/her photo.

(c) *Presentation of flight time record*

(1) A pilot or a student pilot shall without undue delay present his/her flight time record for inspection upon request by an authorised representative of the competent authority.

(2) A student pilot shall carry with him on all solo cross-country flights evidence of the authorisation required by FCL.020(a).

FCL.050 Recording of flight time

The pilot shall keep a reliable record of the details of all flights flown.

FCL.055 Language proficiency

(a) *General*. Pilots required to use the radio telephone shall not exercise the privileges of their licences and ratings unless they have a language proficiency endorsement on their licence in either English or the language used for air traffic control communications involved in the flight.

(b) The applicant for a language proficiency endorsement shall demonstrate an operational level of language proficiency both in the use of phraseologies and plain language. To do so, the applicant shall demonstrate the ability to:

(1) communicate effectively in voice-only and in face-to-face situations;

(2) communicate on common and work-related topics with accuracy and clarity;

(3) use appropriate communicative strategies, to exchange messages and to recognize and resolve misunderstandings in a general or work-related context;

(4) handle successfully the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and

(5) use a dialect or accent which is intelligible to the aeronautical community.

(c) Except for pilots that have demonstrated language proficiency at an expert level, in accordance with table 1 bellow, the language proficiency endorsement shall be re-evaluated every:

(1) 3 years if the level demonstrated is operational level in accordance with table 1 below; or

(2) 6 years if the level demonstrated is extended level in accordance with table 1 below.

(d) *Specific requirements for holders of an instrument rating (IR)*. Without prejudice to the paragraphs above, holders of an IR shall have demonstrated the ability to use the English language at a level that allows them to:

(1) understand all the information relevant to the accomplishment of a flight;

(2) use radio telephony in all phases of flight, including emergency situations;

(3) communicate with other crew members during all phases of flight, including flight preparation.

(e) The demonstration of language proficiency and of the use of English for holders of an IR shall be done through a method of assessment established by the competent authority.

	Operational level	**Extended level**	**Expert level**
Pronunciation Assumes a dialect and/or accent intelligible to the aeronautical community	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
Structure Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
Vocabulary	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
Fluency	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
Comprehension	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.

Interactions	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.

Table 1- Language proficiency levels

FCL.060 Recent experience

(a) *Balloons*. A pilot shall not operate a balloon in commercial air transport or carrying passengers unless he/she has completed in the preceding 90 days at least one take-off, approach and landing as a pilot flying in a balloon.

(b) *Aeroplanes, helicopters, powered-lift, airships and sailplanes*. A pilot shall not operate an aircraft in commercial air transport or carrying passengers:

(1) as pilot-in-command or co-pilot unless he/she has carried out in the preceding 90 days at least 3 take-offs, approaches and landings as pilot flying in an aircraft of the same type or class or a FFS representing that type or class;

(2) as pilot-in-command at night unless he/she:

(i) has carried out in the preceding 90 days at least 1 take-off, approach and landing at night as a pilot flying in an aircraft of the same type or class or an FFS representing that type or class; or

(ii) holds a valid instrument rating.

(3) as cruise relief co-pilot unless he/she:

(i) has carried out in the preceding 90 days at least 3 sectors as a cruise relief pilot on the same type or class of aircraft; or

(ii) has carried out recency and refresher flying skill training in an FFS at intervals not exceeding 90 days. This refresher training may be combined with the training prescribed in MS.OPS.3.075[1].

(4) When a pilot has the privilege to operate more than one type of non-complex helicopter with similar handling and operations characteristics, as defined in accordance with Part-21, the 3 take-offs, approaches and landings required in (1) may be performed in only one of the types, provided that the pilot has completed at least 2 hours of flight in the all the relevant types of helicopter, during the preceding 6 months.

(c) *Specific requirements for commercial air transport*

(1) In the case of commercial air transport, the 90-day period prescribed in subparagraphs (b)(1) and (2) above may be extended up to a maximum of 120 days, as long as the pilot undertakes line flying under the supervision of a type rating instructor or examiner or a person appropriately qualified to provide line training in accordance with Part-MS.

(2) When the pilot does not comply with the requirement in (1), he/she shall complete a training flight in the aircraft or a FFS of the aircraft type to be used, which shall include at least the requirements described in (b)(1) and (2) before he can exercise his/her privileges.

FCL.065 Curtailment of privileges of licence holders aged 60 years or more

(a) *Age 60–64.* The holder of a pilot licence who has attained the age of 60 years shall not act as a pilot of an aircraft engaged in commercial air transport operations except:

(1) as a member of a multi-pilot crew; and,

[1] The reference to this paragraph in Part-MS may still change.

(2) provided that such holder is the only pilot in the flight crew who has attained age 60.

(b) *Age 65.* The holder of a pilot licence who has attained the age of 65 years shall not act as a pilot of an aircraft engaged in commercial air transport operations.

FCL.070 Revocation, suspension and limitation of licences, ratings and certificates

(a) Licences, ratings and certificates issued in accordance with this Part shall be limited, suspended or revoked by the competent authority when the pilot doesn't comply with the requirements of this Part, Part-Medical or Part-OPS, in accordance with the conditions and procedures laid down in Part Authority Requirements.

(b) Upon suspension or revocation, the pilot shall immediately return the licence or certificate to the competent authority.

SUBPART B

LEISURE PILOT LICENCE - LPL

SECTION 1

Common Requirements

FCL.100 LPL - Minimum age

Applicants for the LPL shall be at least 16 years of age.

FCL.105 LPL - Privileges and conditions

(a) *General*. The privileges of the holder of a LPL are to act without remuneration as pilot-in-command in non-commercial operations within the appropriate aircraft category engaged.

(b) *Conditions*. Applicants for the LPL shall have fulfilled the requirements for the relevant aircraft category and, when applicable, for the class or type of aircraft used in the skill test.

FCL.110 LPL – Crediting for the same aircraft category

(a) Applicants for a LPL that have held another licence in the same category of aircraft shall be fully credited towards the requirements of the LPL in that category of aircraft.

(b) Without prejudice to the paragraph above, if the applicant's licence has lapsed for more than 1 year, he/she shall have to pass a skill test for the issue of a LPL in the appropriate aircraft category.

FCL.115 LPL - Training course

Applicants for a LPL shall complete a training course within an approved training organisation. The course shall include theoretical knowledge and flight instruction appropriate to the privileges given.

FCL.120 LPL - Theoretical knowledge examination

(a) Applicants for a LPL shall have demonstrated to the competent authority a level of theoretical knowledge appropriate to the privileges granted, through examinations on the following:

(1) common subjects:

- Air law;
- Human performance;
- Meteorology; and
- Communications;

(2) specific subjects concerning the different aircraft categories:

- Principles of flight;
- Operational procedures;
- Flight performance and planning;
- Aircraft general knowledge; and
- Navigation.

FCL.125 LPL - Skill Test

(a) Applicants for a LPL shall demonstrate through the completion of a skill test the ability to perform, as pilot-in-command of the appropriate aircraft category, the relevant procedures and manoeuvres with competency appropriate to the privileges granted.

The skill test shall be taken within 6 months of completing the flight instruction.

(b) Applicants for the skill test shall have received instruction on the same class, type or group of aircraft to be used for the skill test.

(c) *Pass marks*.

(1) The skill test shall be divided into different sections, representing all the different phases of flight appropriate to the category of aircraft flown.

(2) Failure in any item of a section will cause the applicant to fail the entire section. If the applicant fails only 1 section, he/she shall repeat only that section. Failure in more than one section will cause the applicant to fail the entire test.

(3) When the test needs to be repeated in accordance with (2), failure in any section, including those that have been passed on a previous attempt, will cause the applicant to fail the entire test.

(4) Failure to achieve a pass in all sections of the test in 2 attempts will require further practical training.

SECTION 5

Specific requirements for the LPL for sailplanes – LPL(S)

FCL.105.S LPL(S) - Privileges and conditions

(a) The privileges of the holder of a LPL for sailplanes are to fly sailplanes and powered sailplanes or TMG.

(b) The holder of a LPL(S) shall only carry passengers after he/she has completed 10 hours of flight time as pilot-in-command of sailplanes, powered sailplanes or TMG.

FCL.110.S LPL(S) - Experience requirements and crediting

(a) Applicants for a LPL(S) shall have completed at least 10 hours of flight time in sailplanes, powered sailplanes and/or TMG, including at least:

(1) 8 hours dual instruction;

(2) 2 hours of supervised solo flight time;

(3) 40 launches and landings.

(b) Applicants holding a pilot license for another category of aircraft, with the exception of balloons, shall be credited with 10 % of their total flight time, launches and landings as pilot-in-command in such aircraft, up to a maximum of 6 hours and 20 launches and landings, towards the requirement of (a).

FCL.130.S LPL(S) - Launch methods

(a) The privileges of the LPL(S) shall be limited to the launch method included in the skill test. This limitation may be withdrawn when the pilot has completed:

(1) in the case of winch launch, a minimum of 10 launches in dual instruction, and 5 solo launches under supervision;

(2) for aero tow, self launch, and car launches, a minimum of 5 launches in dual instruction, and 5 solo launches under supervision. In the case of self launch, dual instruction may be done in a touring motor glider;

(3) in the case of bungee launch, a minimum of 10 launches performed in dual instruction or solo under supervision.

(b) The completion of the additional training flights shall be entered in the logbook and confirmed by the instructor.

(c) In order to maintain their privileges in each launch method, pilots shall complete a minimum of 5 launches during the last 24 months.

(d) When the pilot does not comply with the requirement in (c) he/she shall complete the missing number of launches with or under the supervision of an instructor in order to renew the privileges.

FCL.135.S LPL(S) - Extension of privileges to TMG

(a) The privileges of a LPL(S) shall be limited to flying sailplanes and powered sailplanes. This limitation may be withdrawn when the pilot has completed on a TMG:

(1) 6 hours of flight instruction, including:

(i) 4 hours of dual instruction;

(ii) 1 solo cross-country flight of at least 150 km, during which 1 full stop landing at an aerodrome different from the aerodrome of departure shall be performed.

(2) a skill test to demonstrate an adequate level of practical skill in TMG. During this skill test, the applicant shall also demonstrate to the examiner an adequate level of theoretical knowledge for TMG in the following subjects:

- Operational procedures;
- Flight performance and planning;
- Aircraft general knowledge;
- Navigation.

FCL.140.S LPL(S) - Recency requirements

(a) *Sailplanes and powered sailplanes*. Holders of a LPL(S) shall only exercise the privileges of their licence on sailplanes or powered sailplanes when they have:

(1) completed on sailplanes, in the last 24 months, at least:

(i) 6 hours of flight time as pilot-in-command, including 10 launches; or

(ii) 3 hours of flight time as pilot-in-command, including 5 launches, and a minimum of 3 training flights with an instructor;

(2) passed a proficiency check with an examiner on a sailplane at least once in every 6 years.

(b) *TMG*. Holders of a LPL(S) shall only exercise the privileges of their licence on touring motor gliders when they have:

(1) completed on touring motor gliders, in the last 24 months, at least:

(i) 12 hours of flight time as pilot-in-command including 12 launches; or

(ii) 6 hours of flight time as pilot-in-command or TMG, including 6 take-offs and landings, and 1 training flight of at least one hour with an instructor;

(2) passed a proficiency check with an examiner on a TMG at least once in every 6 years.

(3) When the holder of the LPL(S) also has the privileges to fly aeroplanes, the requirements in (1) and (2) may be completed on aeroplanes.

(c) Holders of a LPL(S) that do not comply with the requirements in (a) or (b) shall pass a proficiency check with an examiner before they can resume the exercise of their privileges.

SUBPART C

PRIVATE PILOT LICENCE (PPL), SAILPLANE PILOT LICENCE (SPL) AND BALLOON PILOT LICENCE (BPL)

SECTION 1

Common Requirements

FCL.200 Minimum age

[JAR-FCL 1.100/2.100]

(a) An applicant for a PPL shall be at least 17 years of age;

(b) An applicant for a BPL or an SPL shall be at least 16 years of age.

FCL.205 Conditions

Applicants for the issue of a BPL, SPL or PPL shall, when applicable, have fulfilled the requirements for the class or type rating for the aircraft used in the skill test, as established in Subpart H.

FCL.210 Training course

Applicants for a BPL, SPL or PPL shall complete a training course at an approved training organisation. The course shall include theoretical knowledge and flight instruction appropriate to the privileges given.

FCL.215 Theoretical knowledge examination

(a) Applicants for a BPL, SPL or PPL shall have demonstrated to the competent authority a level of theoretical knowledge appropriate to the privileges granted through examinations in the following subjects:

- Air law;
- Aircraft general knowledge;
- Flight performance and planning;
- Human performance;
- Meteorology;
- Navigation;
- Operational procedures;
- Principles of flight;
- Communications.

FCL.235 Skill Test

(a) Applicants for a BPL, SPL or PPL shall demonstrate through the completion of a skill test the ability to perform, as pilot-in-command of the appropriate aircraft category, the relevant procedures and manoeuvres with competency appropriate to the privileges granted.

The skill test shall be taken within 6 months of completing the flight instruction.

(b) An applicant for the skill test shall have received instruction on the same class or type of aircraft to be used for the skill test.

(c) *Pass marks*.

(1) The skill test shall be divided into different sections, representing all the different phases of flight appropriate to the category of aircraft flown. An applicant shall pass all the relevant sections of the skill test within six months.

(2) Failure in any item of a section will cause the applicant to fail the entire section. Failure in more than one section will cause the applicant to fail the entire test. If the applicant fails only 1 section, he/she shall repeat only that section.

(3) When the test needs to be repeated in accordance with (2), failure in any section, including those that have been passed on a previous attempt, will cause the applicant to fail the entire test.

(4) Failure to achieve a pass in all sections of the test in 2 attempts will require further training.

SECTION 6

Specific requirements for the sailplane pilot licence (SPL)

FCL.205.S SPL – privileges and conditions

(a) The privileges of the holder of a SPL are to act as pilot-in-command of sailplanes, powered sailplanes and/or TMG.

(b) Holders of an SPL shall:

(1) not carry passengers unless they have completed at least 10 hours of flight as pilot of sailplanes, powered sailplanes or TMG;

(2) be restricted to act without remuneration in non-commercial operations until the holder has attained the age of 18 years and has completed 75 hours of experience as pilot-in-command of sailplanes, powered sailplanes and/or TMG.

(c) Before exercising commercial privileges the holder of a SPL shall pass a proficiency check with an examiner.

(c) Notwithstanding paragraphs (b)(2) and (c), the holder of a SPL may receive remuneration for the provision of flight instruction for the LPL or the SPL.

FCL.210.S SPL - Experience requirements and crediting

(a) Applicants for an SPL shall have completed at least 10 hours of flight time as a pilot of sailplanes, powered sailplanes or TMG, including at least the requirements specified in FCL.110.S.

(b) Applicants for an SPL holding a LPL(S) shall be fully credited towards the requirements in (a).

(c) Applicants holding a pilot licence for another category of aircraft, with the exception of balloons, shall be credited with 10 % of their total flight time, launches and landings as pilot-in-command in such aircraft up to a maximum of 6 hours and 20 launches and landings.

FCL.220.S SPL - Launch methods

The privileges of the SPL shall be limited to the launch method included in the skill test. This limitation may be withdrawn and the new privileges exercised when the pilot complies with the requirements in FCL.130.S.

FCL.225.S SPL – Extension of privileges to touring motor gliders

The privileges of the SPL shall be limited to sailplanes and powered sailplanes. This limitation may be withdrawn when the pilot complies with the requirements in FCL.135.S.

FCL.230.S SPL - Recency requirements

Holders of an SPL shall only exercise the privileges of their licence when complying with the recency requirements in FCL.140.S.

SUBPART I

ADDITIONAL RATINGS

FCL.800 Aerobatic rating

(a) Holders of a pilot licence for aeroplanes, helicopters or sailplanes shall only undertake aerobatic flights when they hold the appropriate rating.

(b) Applicants for an aerobatic rating shall have completed:

(1) at least 40 hours of flight time as pilot-in-command in the appropriate aircraft category;

(2) theoretical knowledge instruction appropriate for the rating;

(3) 5 hours of dual aerobatic instruction time.

(c) The privileges of the aerobatic rating shall be limited to the aircraft category in which the flight instruction was completed. This limitation may be withdrawn and the privileges extended to another category of aircraft if the pilot holds a valid license for that aircraft category and has successfully completed at least one dual familiarization flight with an instructor holding an aerobatic rating for that category of aircraft.

FCL.805 Sailplane towing and banner towing ratings

(a) Holders of a pilot licence with privileges to fly aeroplanes or touring motor gliders shall only tow sailplanes or banners when they hold the appropriate sailplane towing or banner towing rating.

(b) Applicants for a towing rating shall have completed:

(1) at least 150 hours of flight time as pilot-in-command for the banner towing rating or 100 hours of flight time as pilot-in-command for the sailplane towing rating. At least 40 of these hours shall be in aeroplanes, if the activity is to be carried out in aeroplanes, or in touring motor gliders, if the activity is to be carried out in touring motor gliders;

(2) theoretical knowledge instruction on towing operations and procedures;

(3) 10 dual instruction flights towing either a banner or a sailplane, as appropriate;

(4) additionally, for the sailplane towing rating, 3 familiarisation flights in a sailplane which is launched by an aircraft;

FCL.810 Night rating

(a) A*eroplanes, touring motor gliders, airships.* If the privileges of a LPL or a PPL for aeroplanes, touring motor glider or airships are to be exercised in VFR conditions at night, applicants shall complete at least 5 additional hours of flight time in the appropriate aircraft category at night, comprising 3 hours of dual instruction, including at least 1 hour of cross-country navigation and 5 solo take-offs and five solo full-stop landings.

(b) *Helicopters*. If the privileges of a PPL for helicopters are to be exercised in VFR conditions at night, the applicant shall have:

(1) completed at least 100 hours of flight time as pilots in helicopters after the issue of the licence, including at least 60 hours as pilot-in-command of helicopters and 20 hours of cross-country flight;

(2) completed a training course at an approved training organisation. The course shall be completed within a period of 6 months and comprise:

(i) 5 hours of theoretical knowledge instruction;

(ii) 10 hours of helicopter dual instrument instruction time; and

(iii) 5 hours of flight time, including at least 3 hours of dual instruction and 5 solo night circuits. Each circuit shall include a take-off and a landing.

(3) An applicant who holds or has held an IR in another category of aircraft shall be credited with 5 hours towards the requirement in (2)(ii) above.

(c) *Sailplanes.* If the privileges of a LPL(S) or a SPL are to be exercised in VFR conditions at night, applicants shall have completed at least:

(1) 50 hours as pilot-in-command in sailplanes or powered sailplanes after the issue of the licence;

(2) 5 hours of dual flight instruction at night.

(3) The privileges of this rating shall be limited to flight taking-off and landing at the same aerodrome.

(d) *Balloons*. If the privileges of a LPL for balloons or a BPL are to be exercised in VFR conditions at night, applicants shall complete at least two instruction flights with take-off during the night, with an average flight time of 90 minutes each.

FCL.815 Mountain ratings

(a) *Privileges*. The privileges of the holder of a wheel mountain rating or a ski mountain rating are to conduct flights to and from surfaces designated as requiring such a rating by the appropriate authorities designated by the Member States.

The wheel mountain rating grants the privilege to fly to and from such surfaces when the runway is not covered by snow.

The ski mountain rating grants the privilege to fly to and from such surfaces when the runway is covered by snow.

(b) *Training course*. Applicants for a wheel or ski mountain rating shall have completed, within a period of 12 months, a course of theoretical knowledge instruction and flight training at an approved training organisation. The content of the course shall be appropriate to the relevant rating.

(c) *Skill test*. After the completion of the training, the applicant shall pass a skill test with an FE qualified for this purpose. The skill test shall contain:

(1) A verbal examination of theoretical knowledge;

(2) 6 landings on at least two different surfaces designated as requiring a mountain rating other than the surface of departure.

(d) *Validity,* A mountain rating shall be valid for a period of 12 months.

(e) *Revalidation.* For revalidation of a mountain rating, the applicant shall:

(1) have completed at least 3 mountain landings in the past 12 months; or

(2) pass a proficiency check. The proficiency check shall comply with the requirements in (c).

(3) For at least every third revalidation the applicant shall comply with the requirements in (2).

(f) *Renewal*. If the rating has lapsed, the applicant shall comply with the requirement in (e)(2).

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SUBPART J

INSTRUCTORS

SECTION 1

Common requirements

FCL.900 Instructor certificates

(a) *General*. A person shall not carry out:

(1) flight instruction in aircraft unless he/she holds:

(i) a pilot licence issued or accepted in accordance with this Regulation;

(ii) an instructor certificate appropriate to the instruction given, issued in accordance with this Subpart;

(2) synthetic flight instruction or multi-crew cooperation instruction unless he/she holds an instructor certificate appropriate to the instruction given, issued in accordance with this Subpart.

(b) *Special conditions*

(1) In the case of introduction of new aircraft, when compliance with the requirements established in this Subpart is not possible, the competent authority shall issue a specific certificate giving privileges for flight instruction. Such a certificate shall be limited to the instruction flights necessary for the introduction of the new type of aircraft and its validity shall not, in any case, exceed 3 years.

(2) The holder of a certificate issued in accordance with (b)(1) who wishes to apply for an instructor certificate shall comply with the pre-requisites and revalidation requirements established for that category of instructor.

FCL.915 General requirements for instructors

(a) *General.* An applicant for an instructor certificate shall be at least 18 years of age.

(b) *Additional requirements for flight instructors*. An applicant for an instructor certificate with privileges to conduct flight instruction in an aircraft shall:

(1) hold at least the licence and, if applicable, the rating for which instruction is to be given;

(2) have:

(i) completed at least 15 hours of flight as a pilot on the class or type of aircraft on which instruction is to be given, of which a maximum of 7 hours may be in an FSTD, if applicable; or

(ii) passed a skill test or proficiency check for the relevant category of instructor on that class or type of aircraft;

(3) be entitled to act as pilot-in-command of the aircraft during such instruction.

(c) *Credit towards further ratings and for the purpose of revalidation*

(1) Applicants for further instructor certificates may be credited with the teaching and learning skills already demonstrated for the instructor certificate held.

(2) Hours flown as an examiner during skill tests or proficiency checks shall be credited in full towards revalidation requirements for instructor certificates held.

FCL.920 Instructor competencies and assessment

(a) *General*. All instructors shall be trained to achieve the following competences:

- Prepare resources;
- Create a climate conducive to learning;
- Present knowledge;
- Integrate Threat and Error Management (TEM) and crew resource management;
- Manage time to achieve training objectives;
- Facilitate learning;
- Assess trainee performance;
- Monitor and review progress;
- Evaluate training sessions;
- Report outcome.

(b) *Assessment*. Except for the multi-crew cooperation instructor (MCCI), the synthetic training instructor (STI) and the mountain rating instructor (MI), the skill test for the issue of an instructor certificate shall include the assessment of the applicant's competences as described in (a).

FCL.925 Instructors for the MPL

(a) Instructors conducting training for the MPL shall:

(1) have successfully completed an MPL instructor training course at an approved training organisation; and

(2) additionally, for the basic, intermediate and advanced phases of the MPL integrated training course:

(i) be experienced in multi-pilot operations; and

(ii) have completed initial crew resource management training with a commercial air transport operator.

(b) *MPL instructors training course*.

(1) The MPL instructor training course shall comprise at least 14 hours of training.

(2) On completion of the training course, the applicant shall undertake an assessment of instructor competencies and of knowledge of the competency-based approach to training.

The assessment shall consist of a practical demonstration of instruction in the appropriate phase of the MPL training course. This assessment shall be conducted by an instructor examiner.

(3) Upon successful completion of the MPL training course, the approved training organisation shall issue an MPL instructor qualification certificate to the applicant.

(c) In order to maintain the privilege to conduct competency based approach training, the instructor shall have, within the preceding 12 months, conducted within an MPL training course:

(1) 1 simulator session of at least 3 hours; or

(2) 1 air exercise of at least 1 hour comprising at least 2 take-offs and landings.

(d) If the instructor has not fulfilled the requirements of (c), before exercising the privileges to conduct instruction for the MPL he/she shall

(1) receive refresher training at an approved training organisation to reach the level of competence necessary to pass the assessment of instructor competencies; and

(2) pass the assessment of instructor competences as set out in (b)(2).

FCL.940 Validity of instructor certificates

With the exception of the mountain rating instructor, and without prejudice to FCL.900(b)(2), instructor certificates shall be valid for a period of 3 years.

SECTION 2

Specific requirements for the light aircraft flight instructor - LAFI

FCL.905.LAFI LAFI - Privileges and conditions

The privileges of a light aircraft flight instructor (LAFI) are to conduct flight instruction for the issue, revalidation or renewal of:

(a) a basic LPL, in the case of aeroplanes and helicopters;

(b) a LPL, in the appropriate aircraft category;

(c) class, type or group extensions to be endorsed on a LPL, in the appropriate aircraft category;

(d) the night rating in the appropriate aircraft category, provided the instructor is qualified to fly at night and has demonstrated the ability to instruct at night to an instructor qualified in accordance with (f);

(e) towing and aerobatic ratings in the appropriate aircraft category, provided that the LAFI holds the appropriate rating and, in the case of aerobatics, has at least 20 hours of experience in aerobatic flying;

(f) a LAFI certificate, provided that the instructor:

(1) in the case of a LAFI for sailplanes or balloons, has completed at least 50 hours of instruction in the appropriate aircraft category;

(2) for all other aircraft categories, has completed at least 250 hours of instruction in the appropriate aircraft category;

(3) has demonstrated to an instructor examiner the ability to instruct for the LAFI certificate, during a skill test conducted in accordance with Appendix 12 to this Part in the appropriate aircraft category.

FCL.910.LAFI LAFI - Restricted privileges

(a) A LAFI shall have his/her privileges limited to not acting as an instructor for first solo flights and first solo navigation flights and to only conducting flight instruction for the issue of a LPL under the supervision of a LAFI or FI for the same category of aircraft nominated by the training organisation for this purpose.

(b) The limitations in (a) shall be removed from the certificate when the LAFI has completed:

(1) in the case of a LAFI for aeroplanes, at least 50 hours of flight instruction in a single-engine piston aeroplane or TMG and has supervised at least 25 student solo flights.

(2) in the case of a LAFI for helicopters, at least 50 hours of flight instruction in helicopters and supervised at least 25 student solo flight air exercises.

(3) In the case of a LAFI for sailplanes, at least 15 hours or 50 launches of flight instruction covering the full flight training syllabus for the issuance of the LPL for sailplanes;.

(4) in the case of a LAFI for balloons, at least 15 hours or 50 take-offs of flight instruction covering the full flight training syllabus for the issuance of a LPL for balloons.

FCL.915.LAFI Pre-requisites for the LAFI training course

Before attending the training course for the LAFI, an applicant for a LAFI certificate shall have:

(a) passed a pre-entry flight test to assess his/her ability to undertake the course.

In the case of the LAFI for aeroplanes and helicopters, the flight test shall be taken with a FI in the appropriate aircraft category. In the case of LAFI for other categories of aircraft, the flight test shall be taken with a LAFI or FI in the appropriate aircraft category.

(b) In the case of a LAFI for aeroplanes:

(1) received at least 3 hours of instrument flight instruction in a single-engine piston aeroplane, of which not more than 2 hours may be instrument ground time in a FSTD;

(2) completed at least 20 hours of cross-country flight time in a single-engine piston aeroplane or TMG as pilot-in-command;

(3) completed at least 200 hours of flight time of which 150 hours as pilot-in-command;

(4) completed at least 30 hours of flight time on a single-engine piston aeroplane of which at least 5 hours shall have been completed during the six months preceding the pre-entry flight test set out in (a);

(c) In the case of a LAFI for helicopters:

(1) received at least 10 hours of instrument flight instruction in a single-engine piston helicopter, of which not more than 5 hours may be instrument ground time in a FSTD;

(2) completed at least 20 hours of cross-country flight time in helicopters as pilot-in-command;

(3) completed at least 250 hours of flight time in helicopters of which 200 hours as pilot-in-command;

(4) have completed at least 15 hours of flight on the type of helicopter on which instruction is to be given;

(d) In the case of a LAFI for sailplanes, completed at least 100 hours of flight time as pilot-in-command and 200 launches as pilot-in-command on sailplanes. Additionally, in case the applicant wants to give instruction on motor gliders, he shall complete at least 30 hours of flight time as pilot-in-command on TMG.

(e) In the case of a LAFI for balloons, completed at least 75 hours of balloon flight time as pilot in-command, of which at least 15 hours have to be in the class and group for which instruction will be given.

FCL.930.LAFI LAFI - Training course

Applicants for a LAFI certificate shall have completed a course of theoretical knowledge instruction and flight training at an approved training organization.

The course shall include, at least:

(a) For the LAFI for aeroplanes or helicopters:

(1) 50 hours of theoretical knowledge instruction, including progress tests.

(2) 25 hours of instructional techniques;

(3) (i) for the LAFI for aeroplanes: at least 15 hours of dual flight instruction, of which 3 hours may be conducted in a FSTD;

(ii) for the LAFI for helicopters: at least 25 hours of dual flight instruction, of which 5 hours may be conducted in a FSTD.

(4) Pilots holding a LAFI or a FI certificate of any category of aircraft shall be credited with 30 hours towards the 50 hours in (a)(1).

(b) For the LAFI for sailplanes or balloons:

(1) 30 hours of theoretical knowledge instruction and instructional techniques, including progress tests;

(2) (i) for the LAFI for sailplanes, 10 hours of dual flight instruction or at least 20 take-offs;

(ii) for the LAFI for balloons 3 hours of dual flight instruction, including at least 3 take-offs;

(3) Pilots holding a LAFI or a FI certificate on any category of aircraft shall be credited with 10 hours towards the requirement in (b) (1).

FCL.935.LAFI LAFI - Skill test

An applicant for an LAFI certificate shall pass a skill test to demonstrate to an examiner the ability to instruct a student pilot to the level required for the issue of a LPL, including pre-flight, post-flight and theoretical knowledge instruction, in accordance with the requirements of Appendix 12 to this Part.

FCL.940.LAFI LAFI - Revalidation and renewal

(a) For revalidation of a LAFI certificate the holder shall fulfil two of the following three requirements:

(1) complete at least:

(i) In the case of a LAFI for aeroplanes or helicopters, 45 hours of flight instruction in the appropriate aircraft category as LAFI, FI, TRI, CRI, IRI, SFI or as Examiner during the period of validity of the certificate, including at least 15 hours of flight instruction within the 12 months preceding the expiry date of the certificate;

(ii) in the case of a LAFI for sailplanes, 30 hours or 60 take-offs of flight instruction in sailplanes, powered sailplanes or TMG as LAFI, FI or as Examiner during the period of validity of the certificate, including at least 10 hours or 20 take-offs of flight instruction within the 12 months preceding the expiry date of the certificate;

(iii) in the case of a LAFI for balloons, 6 hours of flight instruction in balloons as LAFI, FI or as Examiner during the period of validity of the certificate, including at least 2 hours of flight instruction within the 12 months preceding the expiry date of the certificate;

(2) attend an instructor refresher seminar, within the validity period of the certificate;

(3) pass proficiency check in accordance with Appendix 12 to this Part within the 12 months preceding the expiry date of the LAFI certificate;

(b) For at least each third revalidation of a LAFI certificate, the holder shall pass a proficiency check in accordance with Appendix 12 to this Part.

(c) Renewal. If the certificate has lapsed, the applicant shall, within a period of 12 months before the renewal:

(1) attend an instructor refresher seminar;

(3) pass a proficiency check in accordance with Appendix 12 to this Part.

SECTION 3

Specific requirements for the flight instructor - FI

FCL.905.FI FI - Privileges and conditions

The privileges of a FI are to conduct flight instruction for the issue, revalidation or renewal of:

(a) a PPL, SPL, BPL and LPL in the appropriate aircraft category;

(b) class and type ratings for single-pilot, single-engine aircraft and class and group extensions, in the case of balloons;

(c) type ratings for single or multi-pilot airship;

(d) a CPL in the appropriate aircraft category, provided that the FI has completed at least 500 hours of flight time as a pilot in that aircraft category, including at least 200 hours of flight instruction;

(e) the night rating, provided that the FI:

(1) is qualified to fly at night in the appropriate aircraft category;

(2) has demonstrated the ability to instruct at night to an FI qualified in accordance with (j) below; and

(3) complies with the night experience requirement of FCL.060(b)(2).

(f) a towing rating, provided such privileges are held;

(g) an aerobatic rating, provided that the FI holds such a rating and has completed 20 hours of experience in aerobatic flying;

(h) an IR in the appropriate aircraft category, provided that the FI has:

(1) At least 200 hours flight time under IFR, of which up to 50 hours may be instrument ground time in a FFS, an FTD 2/3 or FNPT II;

(2) completed as a student the IRI training course and has passed the skill test for the IRI certificate; and

(3) in addition:

(i) for multi-engine aeroplanes, met the requirements for the issue of a CRI certificate;

(ii) for multi-engine helicopters, meet the requirements for the issue of a TRI certificate.

(i) a single-pilot multi-engine type or class rating, provided that the FI meets:

(1) In the case of aeroplanes, the pre-requisites for the CRI training course established in FCL.915.CRI (a) and the requirements of FCL.930.CRI and FCL.935.CRI;

(2) In the case of helicopters, the requirements established in FCL.910.TRI (c)(1) and the pre-requisites for the TRI(H) training course established in FCL.915.TRI (b)(2);

(j) an FI, IRI, CRI or LAFI certificate provided that the FI has:

(1) completed at least:

(i) in the case of a FI(S) or FI(B), at least 50 hours of instruction in the appropriate aircraft category;

(ii) in all other cases, 500 hours of instruction in the appropriate aircraft category;

(2) passed a skill test to demonstrate to an instructor examiner the ability to instruct for the FI certificate, during a skill test conducted in accordance with Appendix 12 to this Part in the appropriate aircraft category;

(k) an MPL, provided that the FI:

(1) for the core flying phase of training, has completed at least 500 hours of flight time as a pilot of aeroplanes, including at least 200 hours of flight instruction;

(2) for the basic phase of training:

(i) holds a multi-engine aeroplane instrument rating and the privilege to instruct for an instrument rating; and

(ii) has at least 1500 hours of flight time in multi-crew operations.

(3) In the case of an FI already qualified to instruct on ATPL(A) or CPL(A)/IR integrated courses, the requirement of (2)(ii) may be replaced by the completion of a structured course of training consisting of:

(i) MCC qualification;

(ii) observing 5 sessions of instruction in Phase 3 of an MPL course;

(iii) observing 5 sessions of instruction in Phase 4 of a MPL course;

(iv) observing 5 operator recurrent line oriented flight training sessions;

(v) the content of the MCCI instructor course;

In this case, the FI shall conduct its first 5 instructor sessions under the supervision of a TRI(A), MCCI(A) or SFI(A) qualified for MPL instruction.

(l) the instruction required to conduct flight tests, provided that the FI is qualified to conduct such flight tests.

FCL.910.FI FI - Restricted privileges

(a) An FI shall have his/her privileges limited to conducting flight instruction under the supervision of an FI for the same category of aircraft nominated by the training organisation for this purpose, in the following cases:

(1) for the issue of the PPL, SPL, BPL and LPL;

(2) in all integrated courses at PPL level, in case of aeroplanes and helicopters;

(3) for class and type ratings for single-pilot, single-engine aircraft;

(4) for the night rating.

(b) While conducting training under supervision, in accordance with (a), the FI shall not have the privilege to authorise student pilots to conduct solo flights.

(c) The limitations in (a) and (b) shall be removed from the certificate when the FI has completed:

(1) For FI(A), 100 hours flight instruction in aeroplanes and, in addition has supervised at least 25 student solo flights;

(2) For FI(H) 100 hours flight instruction in helicopters and, in addition has supervised at least 25 student solo exercises.

(3) For FI(As), FI(S) and FI(B), 15 hours or 50 take-offs flight instruction covering the full training syllabus for the issue of a PPL(As), SPL or BPL in the appropriate aircraft category.

FCL.915.FI Pre-requisites for the FI training course

Before attending the FI training course, an applicant for an FI certificate shall:

(a) have passed a specific pre-entry flight test with an FI qualified in accordance with FCL.905.FI (j) within the six months preceding the start of the course, to assess the ability of the applicant to undertake the course;

(b) in the case of the FI(A) and FI(H):

(1) have received at least 10 hours of instrument flight instruction in the appropriate aircraft category, of which at least 5 hours may be instrument ground time in an FSTD;

(2) have completed 20 hours of cross-country flight in the appropriate aircraft category as pilot-in-command; and

(c) additionally, for the FI(A):

(1) hold at least a CPL(A) or completed at least 200 hours of flight time, of which 150 hours as pilot-in-command;

(2) have completed at least 30 hours on single-engine piston powered aeroplanes of which at least 5 hours shall have been completed during the 6 months preceding the pre-entry flight test set out in (a) above;

(3) have completed a cross-country flight as pilot-in-command, including a flight of at least 540 km (300 NM) in the course of which full stop landings at two different aerodromes shall be made;

(d) additionally, for the FI(H), have completed 250 hours of helicopter flight time, of which:

(1) at least 100 hours shall be as pilot-in-command, if the applicant holds an ATPL(H) or a CPL(H); or

(2) at least 200 hours as pilot-in-command, if the applicant holds a PPL(H);

(e) for an FI(As), have completed 500 hours of flight time in airships as pilot-in-command, of which 400 hours shall be as pilot-in-command holding a CPL(As);

(f) for a FI(S), have completed 100 hours of flight time and 200 launches as pilot-in-command on sailplanes. Additionally, where the applicant wishes to give instruction on touring motor gliders, he/she shall have completed 30 hours of flight time as pilot-in-command on TMG.

(g) for a FI (B), have completed 75 hours of balloon flight time as pilot in-in-command, of which at least 15 have to be in the class and group for which instruction will be given.

FCL.930.FI FI -Training course

(a) Applicants for the FI certificate shall have completed a course of theoretical knowledge and flight instruction at an approved training organisation.

(b) The course shall include:

(1) (i) In the case of an FI (A), (H) and (As), at least 125 hours of theoretical knowledge instruction, including progress tests;

(ii) In the case of an FI(B) or FI(S) at least 30 hours of theoretical knowledge instruction, including progress tests;

(2) (i) In the case of an FI (A) and (H), at least 30 hours of flight instruction, of which 25 hours shall be dual instruction, of which 5 may be conducted in a FFS, an FNPT I or II or an FTD 2/3;

(ii) In the case of an FI(As), at least 20 hours of flight instruction, of which 15 hours shall be dual instruction;

(iii) In the case of an FI (S), at least 10 hours or 20 take-offs;

(iv) In the case of an FI(B), at least 3 hours including 3 take-offs;

(3) Pilots holding or having held an FI certificate on any other category of aircraft shall be credited towards the requirement of (b)(1) above with:

(i) 75 hours, in the case of aeroplanes, helicopters and airships;

(ii) 10 hours in the case of sailplanes and balloons.

FCL.935.FI FI - Skill test

An applicant for an FI certificate shall pass a skill test to demonstrate to an examiner the ability to instruct a student pilot to the level required for the issue of a PPL, SPL or BPL including pre-flight, post-flight and theoretical knowledge instruction, in accordance with the requirements of Appendix 12 to this Part.

FCL.940.FI FI - Revalidation and renewal

(a) For revalidation of an FI certificate, the holder shall fulfil two of the following three requirements:

(1) complete:

(i) in the case of an FI(A) and (H), at least 50 hours of flight instruction in the appropriate aircraft category during the period of validity of the certificate as FI, TRI, CRI, IRI, SFI or Examiner. 15 hours of flight instruction shall have been completed within the 12 months preceding the expiry date of the FI certificate. If the privileges to instruct for the IR are to be revalidated, 10 of these 15 hours shall be instruction for an IR;

(ii) in the case of an FI (As), at least 20 hours of flight instruction in airships as FI or as Examiner during the period of validity of the certificate, including at least 6 hours of flight instruction within the 12 months preceding the expiry date of the FI certificate. If the privileges to instruct for the IR are to be revalidated, 10 of these 20 hours shall be instruction for an IR;

(iii) In the case of an FI(S), at least 30 hours or 60 take-offs of flight instruction in sailplanes, powered sailplanes or TMG as FI, LAFI or as Examiner during the period of validity of the certificate, including at least 10 hours or 20 take-offs of flight instruction within the 12 months preceding the expiry date of the FI certificate;

(iv) In the case of an FI(B), at least 6 hours of flight instruction in balloons as FI, LAFI or as Examiner during the period of validity of the certificate, including at least 2 hours of flight instruction within the 12 months preceding the expiry date of the FI certificate;

(2) attend an instructor refresher seminar, within the validity period of the FI certificate;

(3) pass a proficiency check in accordance with Appendix 12 to this Part, within the 12 months preceding the expiry date of the FI certificate.

(b) For the first and at least each alternate subsequent revalidation in the case of FI(A) or FI(H), or each third revalidation, in the case of FI(As), (S) and (B), the holder shall have to pass a proficiency check in accordance with Appendix 12 to this Part.

(c) *Renewal*. If the FI certificate has lapsed, the applicant shall, within a period of 12 months before renewal:

(2) attend an instructor refresher seminar;

(3) pass a proficiency check in accordance with Appendix 12 to this Part.

SUBPART K

EXAMINERS

SECTION 1

Common requirements

FCL.1000 Examiner certificates

(a) *General*. Holders of an examiner certificate shall:

(1) hold a licence and rating at least equal to the licence or rating for which they are authorised to conduct skill tests or proficiency checks and the privilege to instruct for this licence or rating;

(2) be qualified to act as pilot-in-command of the aircraft during a skill test or proficiency check.

(b) Special conditions.

(1) In the case of introduction of new aircraft, when compliance with the requirements established in this Subpart is not possible, the competent authority shall issue a specific certificate giving privileges for the conduct of skill tests and proficiency checks. Such a certificate shall be limited to the skill tests and proficiency checks necessary for the introduction of the new type of aircraft and its validity shall not, in any case, exceed 3 years.

(2) The holder of a certificate issued in accordance with (b)(1) who wishes to apply for an examiner certificate shall comply with the pre-requisites and revalidation requirements established for that category of examiner.

FCL.1005 Limitation of privileges in case of vested interests

Examiners shall not conduct skill tests or proficiency checks for applicants whom they have instructed for that licence or rating.

FCL.1010 Pre-requisites for examiners

Applicants for an examiner certificate shall demonstrate:

(a) relevant knowledge, background and appropriate experience related to the privileges of an examiner;

(b) that they have not had their licence suspended, limited or revoked during the last 3 years;

(c) that they have not been subject to the application of any sanctions for non compliance with this Part or Part-OPS during the last 3 years.

FCL.1015 Examiner standardisation

(a) Applicants for an examiner certificate shall undertake a standardisation course provided by the competent authority or by an approved training organisation and approved by the competent authority.

(b) The standardisation course shall include, at least:

(1) 1 day of theoretical instruction;

(2) observation of 1 skill test or proficiency test for the licences or ratings for which the applicant seeks the privilege to conduct tests and checks.

(c) The standardisation course shall contain instruction on the applicable requirements of Part-FCL and Part-OPS, the conduct of skill tests and proficiency checks, and their documentation and reporting.

Examiners shall also be briefed on the protection requirements for personal data, liability, accident insurance and fees, as applicable in the Member State where they exercise their privileges.

FCL.1020 Examiners assessment of competence

Applicants for an examiner certificate shall demonstrate their competence to the competent authority through the conduct of a skill test or proficiency check in the examiner role for which privileges are sought, including briefing, conduct of the skill test or proficiency check, and assessment of the person to whom the test or check is given, debriefing and recording documentation.

FCL.1025 Validity, revalidation and renewal of examiner certificates

(a) *Validity*. An examiner certificate shall be valid for 3 years.

(b) *Revalidation*. An examiner certificate shall be revalidated when the holder has, during the validity period of the certificate:

(1) conducted at least 3 skill tests or proficiency checks every year or, in the case of FE(S), FE(B), and FE for the LPL(S) or LPL(B), 3 skill tests or proficiency checks during the validity period;

(2) attended an examiner refresher seminar provided by the competent authority or by an approved training organisation and approved by the competent authority.

(3) One of the skill tests or proficiency checks completed in accordance with (1) shall have been observed by an inspector from the competent authority or by a senior examiner specifically tasked by the competent authority to do so, in accordance with the applicable national legislation.

(c) *Renewal*. If the certificate has expired, the applicant shall comply with the requirements in FCL.1015 and FCL.1020 before he/she can resume the exercise of the privileges.

(d) An examiner certificate shall only be revalidated or renewed if the applicant demonstrates continued compliance with the requirements in FCL.1010 and FCL.1030.

FCL.1030 Obligations for examiners

(a) When conducting skill tests and proficiency checks, examiners shall:

(1) ensure that communication with the applicant can be established without language barriers;

(2) verify that the applicant complies with all the experience or instruction requirements established by this Part for the issue, revalidation or renewal of the licence, rating or certificate for which the skill test or proficiency check is taken;

(3) make the applicant aware of the consequences of providing incomplete, inaccurate or false information related to their training and flight experience.

(b) After completion of the skill test or proficiency check, the examiner shall:

(1) inform the applicant whether he passed or not the test or check. When the applicant hasn't passed the test or check, the examiner shall also inform him/her of the consequences of that fact, of the requirements he/she will have to comply with in order to exercise the privileges sought, and of his/her right of appeal to the competent authority that issued, or to whom the pilot has applied for the issue of, the licence, rating or certificate for which the skill test or proficiency check was performed;

(2) in the case of proficiency checks for revalidation or renewal, endorse the pilot's licence or certificate with the new expiry date of the rating or certificate;

(3) provide the pilot with a signed report of the skill test or proficiency check and submit without delay copies of the report to the authority referred to in (1), and to the competent authority that issued the examiner certificate. The report shall include:

(i) a declaration that the examiner has received information from the pilot regarding his/her experience and instruction, and found that experience and instruction complying with the applicable requirements of this Part;

(ii) information on the exercises and manoeuvres performed during the skill test or proficiency check, and the verbal theoretical knowledge examination, when applicable;

(iii) the assessment of the applicant's knowledge and skill.

(c) Examiners shall maintain records with details of skill tests and proficiency checks performed and their results.

(d) Upon request by the competent authority, or the authority referred to in (b)(1), examiners shall submit all records and reports, and any other information, as required for oversight activities.

SECTION 2

Specific requirements for flight examiners - FE

FCL.1005.FE FE - Privileges and conditions

(a) *FE(A)*. The privileges of an FE for aeroplanes are to conduct:

(1) skill tests for the issue of the PPL(A) and skill tests and proficiency checks for associated single-pilot class and type ratings, provided that the examiner has completed at least 1000 hours of flight time as a pilot of aeroplanes, including at least 250 hours of flight instruction;

(2) skill tests for the issue of the CPL(A) and skill tests and proficiency checks for the associated single-pilot class and type ratings, provided that the examiner has completed at least 2000 hours of flight time as a pilot of aeroplanes, including at least 250 hours of flight instruction;

(3) skill tests and proficiency checks for the LPL(A), provided that the examiner has completed at least 500 hours of flight time as a pilot of aeroplanes or touring motor gliders, including at least 150 hours of flight instruction;

(4) skill tests for the issue of a mountain rating;

(b) *FE(H)*. The privileges of an FE for helicopters are to conduct:

(1) skill tests for the issue of the PPL(H) and CPL(H);

(2) skill tests and proficiency checks for:

(i) single-pilot single-engine helicopter type ratings inserted in a PPL(H), provided that the examiner has completed 1000 hours of flight time as a pilot of helicopters, including at least 250 hours of flight instruction;

(ii) single-pilot single-engine helicopter type ratings inserted in a CPL(H), provided the examiner has completed 2000 hours of flight time as a pilot of helicopters, including at least 250 hours of flight instruction

(iii) single-pilot multi-engine helicopter type ratings inserted in a PPL(H) or a CPL(H), provided that the examiner has completed 1000 hours of flight time as a pilot of helicopters, of which at least 500 hours shall be as pilot-in-command;

(iv) for the LPL(H).

(c) *FE(As)*. The privileges of an FE for airships are to conduct:

(1) skill tests for the issue of the PPL(As) and CPL(As);

(2) skill tests and proficiency checks for the associated airship type ratings, provided that the examiner has completed 500 hours of flight time as a pilot of airships, including 100 hours of flight instruction;

(e) *FE(S)*. The privileges of an FE for sailplanes are to conduct:

(1) skill tests for the issue of the SPL and the LPL(S);

(2) proficiency checks for the SPL and for the LPL(S), provided that the examiner has completed 300 hours of flight time as a pilot of sailplanes or powered sailplanes, including 150 hours or 300 launches of flight instruction;

(3) proficiency checks for the extension of the SPL privileges to commercial operations, provided that the examiner has completed 300 hours of flight time as a pilot of sailplanes, powered sailplanes or touring motor gliders, including 90 hours of flight instruction;

(4) skill tests for the extension of the SPL or LPL(S) privileges to TMG, provided that the examiner has completed 300 hours of flight time as a pilot of sailplanes, powered sailplanes or touring motor gliders, including 90 hours of flight instruction on TMG;

(f) *FE(B)*. The privileges of an FE for balloons are to conduct:

(1) skill tests for the issue of the BPL and the LPL(B);

(2) skill tests and proficiency checks for the extension of the privileges to another balloon class or group, provided that the examiner has completed 250 hours of flight time as a pilot of balloons, including 75 hours of flight instruction;

(3) proficiency checks for the extension of the BPL privileges to commercial operations, provided that the examiner has completed 300 hours of flight time as a pilot of balloons, including 90 hours of flight instruction;

(g) *FE(LPL-S)*. The privileges of an FE for the LPL for sailplanes are to conduct:

(1) skill tests for the issue of the LPL(S);

(2) proficiency checks for the LPL(S), provided that the examiner has completed 300 hours of flight time as a pilot of sailplanes or powered sailplanes, including 150 hours or 300 launches flight instruction;

(3) skill tests for the extension of the LPL(S) privileges to TMG, provided that the examiner has completed 300 hours of flight time as a pilot of sailplanes, powered sailplanes or touring motor gliders, including 90 hours of flight instruction on TMG;

(h) *FE(LPL-B)*. The privileges of an FE for the LPL for balloons are to conduct:

(1) skill tests for the issue of the LPL(B);

(2) skill tests and proficiency checks for the extension of the LPL(B) privileges to another class of balloons, provided that the examiner has completed 250 hours of flight time as a pilot of balloons, including 75 hours of flight instruction;

FCL.1010.FE FE - Pre-requisites

(a) Before attending the examiner standardisation course, an applicant for an FE certificate shall:

(1) (i) in the case of aeroplanes, helicopters and airships, hold a CPL in the appropriate aircraft category;

(ii) In the case of sailplanes and balloons, hold a SPL or BPL in the appropriate aircraft category;

(2) hold an FI certificate in the appropriate aircraft category.

(b) Applicants whishing to conduct examinations only for the issue, revalidation and renewal of LPL shall be required to hold only a LPL and a LAFI certificate in the appropriate aircraft category.

SECTION 7

Specific requirements for the flight instructor examiner - FIE

FCL.1005.FIE FIE - Privileges and conditions

(a) FIE(A). The privileges of an FIE for aeroplanes are to conduct skill tests or proficiency checks for the issue, revalidation or renewal of certificates for LAFI(A), FI(A), TRI(A), CRI(A), IRI(A), SFI(A) and assessments of competence for the STI(A) and the MI(A).

(b) FIE(H). The privileges of an FIE for helicopters are to conduct, skill tests or proficiency checks for the issue, revalidation or renewal of certificates for LAFI(H), FI(H), TRI(H), IRI(H) or SFI(H) and assessments of competence for the STI(H) and the MI(H), on single-pilot helicopters.

(c) FIE (As), (S), (B). The privileges of an FIE for sailplanes, balloons and airships are to conduct skill tests or proficiency checks for the issue, revalidation or renewal of instructor certificates in the appropriate aircraft category.

FCL.1010.FIE FIE - Pre-requisites

(a) FIE(A). Before attending the examiner standardisation course, applicants for an FIE certificate for aeroplanes shall:

(1) Hold an FE(A), TRE(A) or IRE(A) certificate, as applicable;

(2) Have completed 2000 hours of flight time as a pilot of aeroplanes; and

(3) Have at least 100 hours of flight time instructing applicants for an FI(A) certificate.

(b) FIE(H). Before attending the examiner standardisation course, applicants for an FIE certificate for helicopters shall:

(1) Hold an FE(H), TRE(H) or IRE(H) certificate, as applicable;

(2) Have completed 2000 hours of flight time as pilot of helicopters;

(4) Have at least 100 hours of flight time instructing applicants for an FI(H), TRI(H) or IRI(H) certificate;

(c) FIE(As). Before attending the examiner standardisation course, applicants for an FIE certificate for airships shall:

(1) Have completed 500 hours of flight time as a pilot of airships;

(2) Have at least 20 hours of flight time instructing applicants for an FI(AS) certificate;

(3) Hold an FE(As) certificate;

(d) FIE(S). Before attending the examiner standardisation course, applicants for an FIE certificate for sailplanes shall:

(1) Have completed 500 hours of flight time as a pilot of sailplanes or powered sailplanes,

(2) Have completed 15 hours or 50 launches instructing applicants for an FI(S) or LAFI(S) certificate;

(3) Hold a certificate as FE(S) or FE(LPL-S).

(e) FIE(B). Before attending the examiner standardisation course, applicants for an FIE certificate for balloons shall:

(1) Have completed 350 hours of flight time as a pilot of balloons

(2) have completed 15 hours instructing applicants for an LAFI(B) or FI(B) certificate;

(3) Hold a certificate as FE(B) or FE(LPL-B).

APPENDIX 1

CREDITING OF THEORETICAL KNOWLEDGE

A. Crediting of theoretical knowledge for the issue of a pilot licence in another category of aircraft– Bridge instruction and examination requirements

1. LPL, PPL, BPL and SPL

1.1 For the issue of a LPL, the holder of a LPL in another category of aircraft shall be fully credited with theoretical knowledge on the common subjects established in FCL.120(a)(1).

1.1 Without prejudice to the paragraph above, for the issue of a LPL, PPL, BPL or SPL, the holder of a licence in another category of aircraft shall pass theoretical knowledge examinations to the appropriate level in the following topics:

- Aircraft General Knowledge;
- Flight Performance and Planning;
- Operational Procedures and Principles of Flight.

1.1.2 For the issue of a PPL, BPL or SPL, the holder of a LPL in the same category of aircraft shall be credited in full.

instruction on the same type or class of aircraft to be used in the test.

2 An applicant shall pass all the relevant sections of the skill test. If any item in a section is failed, that section is failed. Failure in more than one section will require the applicant to take the entire test again. An applicant failing only one section shall only repeat the failed section. Failure in any section of the retest, including those sections that have been passed on a previous attempt, will require the applicant to take the entire test again. All sections of the skill test shall be completed within six months. Failure to achieve a pass in all sections of the test in two attempts will require further training.

3 Further training may be required following any failed skill test. There is no limit to the number of skill tests that may be attempted.

CONDUCT OF THE TEST

4 Should the applicant choose to terminate a skill test for reasons considered inadequate by the flight examiner (FE), the applicant shall retake the entire skill test. If the test is terminated for reasons considered adequate by the FE, only those sections not completed shall be tested in a further flight.

5 Any manoeuvre or procedure of the test may be repeated once by the applicant. The flight examiner may stop the test at any stage if it is considered that the applicant's demonstration of flying skill requires a complete re-test.

6 An applicant shall be required to fly the aircraft from a position where the pilot-in-command functions can be performed and to carry out the test as if no other crew member is present. Responsibility for the flight shall be allocated in accordance with national regulations.

7 An applicant shall indicate to the flight examiner the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the check list for the aircraft on which the test is being taken. During pre-flight preparation for the test the applicant is required to determine power settings and speeds. Performance data for take-off, approach and landing shall be calculated by the applicant in compliance with the operations manual or flight manual for the aircraft used.

8 The flight examiner shall take no part in the operation of the aircraft except where intervention is necessary in the interests of safety or to avoid unacceptable delay to other traffic.

APPENDIX 12

SKILL TEST, PROFICIENCY CHECK AND VERBAL THEORETICAL KNOWLEDGE EXAMINATION FOR THE INSTRUCTOR CERTIFICATE

GENERAL

1 The format and application form for the skill test shall be determined by the Authority.

2 The instructor skill test shall comprise oral theoretical examinations on the ground, pre-flight and post flight briefings and in-flight demonstrations during skill tests in the appropriate aircraft category.

3 An applicant for the skill test shall have received instruction on the same type or class as of the aircraft used for the test. The aircraft used for the test shall meet the requirements set out in Appendix 4, B.1, C.1 and D.1.

3 Before taking the skill test an applicant shall have completed the required training. The approved training organisation shall produce the applicant's training records when required by the examiner.

4 The examiner shall be the pilot-in-command, except in circumstances agreed upon by the examiner when another instructor is designated as pilot-in-command for the flight.

5 During the skill test the applicant shall occupy the seat normally occupied by the instructor, except in the case of balloons. The examiner or another instructor shall function as the 'student'. The applicant shall be required to explain the relevant exercises and to demonstrate their conduct to the 'student', where appropriate. Thereafter, the 'student' shall execute the same manoeuvres including typical mistakes of inexperienced students. The applicant is expected to correct mistakes orally or, if necessary, by intervening.

CONTENT

6 The content of the skill test shall, in addition to the competencies described in FCL.920, include the following:

SECTION 1 **THEORETICAL KNOWLEDGE ORAL**	
	Air law
	Aircraft General Knowledge
	Flight Performance and Planning
	Human Performance and Limitations
	Meteorology
	Navigation
	Operational Procedures
	Principles of Flight
	Training Administration

SECTIONS 2 AND 3 SELECTED MAIN EXERCISE:

SECTION 2 **PRE-FLIGHT BRIEFING**	
	Visual Presentation
	Technical Accuracy

	Clarity of Explanation
	Clarity of Speech
	Instructional Technique
	Use of Models and Aids
	Student Participation
SECTION 3 FLIGHT	
	Arrangement of Demo
	Synchronisation of Speech with Demo
	Correction of Faults
	Aircraft Handling
	Instructional Technique
	General Airmanship/Safety
	Positioning, use of Airspace
SECTION 4 MULTI-ENGINE EXERCISES	
	[1]Actions following an Engine failure shortly after take-off
	[1]A single-engine approach and go around
	[1]A single-engine approach and landing

[1] These exercises shall be demonstrated at the skill test for the single-pilot multi-engine CRI rating and for any airship instructor certificate.

SECTION 5 POSTFLIGHT DE-BRIEFING	
	Visual Presentation
	Technical Accuracy
	Clarity of Explanation
	Clarity of Speech
	Instructional Technique
	Use of Models and Aids
	Student Participation

(a) Section 1, the oral theoretical knowledge examination part of the skill test, is for all instructor certificates and shall be subdivided into two parts:

(i) the applicant is required to give a lecture under test conditions to other 'student(s)', one of whom will be the examiner. The test lecture is to be selected from items a-i of Section 1. The amount of time for preparation of the test lecture shall be agreed upon beforehand with the examiner. Appropriate literature may be used by the applicant. The test lecture

should not exceed 45 minutes.

(ii) the applicant is tested orally by an examiner for knowledge of items a–i of Section 1 and the 'core instructor competencies - teaching and learning' content given in the instructor courses.

(b) Section 2, 3 and 5 are for all instructor certificates. These sections comprise exercises to demonstrate the ability to be an FI (i.e. instructor demonstration exercises) chosen by the examiner from the flight syllabus of the FI training courses. The applicant will be required to demonstrate FI abilities, including briefing, flight instruction and de-briefing.

(c) Section 4 comprises additional instructor demonstration exercises for an instructor certificate for multi-engine aircraft. This section, if required, shall use a multi-engine aircraft, or a simulator or FNPT II simulating a multi-engine aircraft. This section shall be completed in addition to Section 2, 3 and 5.

7 The skill test shall also include additional demonstration exercises, as decided by the examiner and agreed upon with the applicant before the skill test. For an instructor certificate for instrument ratings (IR), these additional exercises shall be related to the training requirements for the initial issue of an IR.

8 All relevant Sections shall be completed within a period of 6 months. However, all Sections should, where possible, be completed on the same day. Failure in any exercise requires a retest covering all exercises, with the exception of those in Sections 1 and 5, which, if failed, may be retaken separately. The examiner shall terminate the test at any stage if they consider that a retest is required.

PROFICIENCY CHECK

9 An applicant who fails to achieve a pass in all sections of a proficiency check before the expiry date of an instructor certificate shall not exercise the privileges of that certificate until the proficiency check has successfully been completed.

ANNEX III TO THE IMPLEMENTING REGULATION

REQUIREMENTS FOR THE ACCEPTANCE OF LICENCES ISSUED BY OR ON BEHALF OF THIRD COUNTRIES

1. A pilot licence issued in compliance with the requirements of ICAO Annex 1 by a third country may be accepted by the competent authority of a Member State in the case of pilots involved in the operation of aircraft registered in a third country and used by an operator for which any Member State ensures oversight of operations or used into, within or out of the Community by an operator established or residing in the Community.

2. In the case of pilot licences for commercial air transport and other professional activities, the holder shall comply with the following requirements:

   (a) complete, as a skill test, the type or class rating revalidation requirements of Part-FCL relevant to the privileges of the licence held;

   (b) demonstrate that he has acquired knowledge of the relevant parts of Part-OPS and Part-FCL;

   (c) demonstrate knowledge of English in accordance with FCL.055.

   (d) hold a valid Class 1 medical certificate, issued in accordance with Part-Medical;

   (e) In the case of aeroplanes, comply with the experience requirements set out in the following:

Licence held	Total flying hours experience	Privileges	
(1)	(2)	(3)	
ATPL(A)	>1 500 hours as PIC on multi-pilot aeroplanes	Commercial air transport in multi-pilot aeroplanes as PIC	(a)
ATPL(A) or CPL(A)/IR*	>1 500 hours as PIC or co-pilot on multi-pilot aeroplanes according to operational requirements	Commercial air transport in multi-pilot aeroplanes as co-pilot	(b)
CPL(A)/IR	>1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC	(c)
CPL(A)/IR	>1 000 hours as PIC or as co-pilot in single-pilot aeroplanes according to operational requirements	Commercial air transport in single-pilot aeroplanes as co-pilot according to Part-OPS	(d)
CPL(A)	>700 hours in aeroplanes other than TMGs, including 200 hours in the activity role for which acceptance is sought, and 50 hours in that role in the last 12 months	Activities in aeroplanes other than commercial air transport	(e)

*CPL(A)/IR holders on multi-pilot aeroplanes shall have demonstrated ICAO ATPL(A) level knowledge before acceptance.

   (f) In the case of helicopters, comply with the experience requirements set out in the following table:

Licence held	Total flying hours experience	Privileges	
(1)	(2)	(3)	
ATPL(H) valid IR	>1000 hours as PIC on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as PIC in VFR and IFR operations	(a)
ATPL(H) no IR privileges	>1000 hours as PIC on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as PIC in VFR operations	(b)
ATPL(H) valid IR	>1000 hours as pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot in VFR and IFR operations	(c)
ATPL(H) no IR privileges	>1000 hours as pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot in VFR operations	(d)
CPL(H)/IR*	>1000 hours as pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot	(e)
CPL(H)/IR	>1000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC	(f)
CPL(H)	>700 hours in helicopters other than those certificated under CS - 27/29 or equivalent, including 200 hours in the activity role for which acceptance is sought, and 50 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport	(g)

*CPL(H)/IR holders on multi-pilot helicopters shall have demonstrated ICAO ATPL level knowledge before acceptance

3 In the case of private pilot licences with an instrument rating, the holder shall comply with the following requirements:

(a) complete the skill test for instrument rating and the type or class ratings relevant to the privileges of the licence held, in accordance with Appendix 7 and Appendix 9 to Part-FCL;

(b) demonstrate knowledge of Air Law, Aeronautical Weather codes, Flight Planning and Performance (IR), and Human Performance;

(c) demonstrate knowledge of English in accordance with FCL.055;

(d) hold at least a valid Class 2 medical certificate issued in accordance with ICAO Annex 1;

(f) have a minimum experience of at least 100 hours of instrument flight time as pilot-in-command in the relevant category of aircraft.

4. In the case of private pilot licences, the holder shall comply with the following requirements:

(a) demonstrate knowledge of Air Law and Human Performance;

(b) pass the PPL skill test as set out Part-FCL;

(c) fulfil the relevant requirements of Part-FCL for the issuance of a type or class rating as relevant to the privileges of the licence held;

(d) hold at least a Class 2 medical certificate issued in accordance with ICAO Annex 1;

(e) demonstrate language proficiency in accordance with FCL.055;

(f) have a minimum experience of at least 100 hours as pilot in the relevant category of aircraft.

5. The period of acceptance of a licence shall not exceed one year, provided that the basic licence remains valid.

The user of a licence accepted by a Member State shall comply with the requirements stated in Part-FCL.

6. Notwithstanding the provisions of the paragraphs above, in the case of introduction of new aircraft types Member States may accept a licence issued in accordance with ICAO Annex 1 by third countries for a maximum of 12 months in the case of specific tasks of limited duration, such as instruction flights for initial entry into service, demonstration, ferry or test flights, provided the applicant complies with the following requirements:

(a) holds an appropriate licence and medical certificate and associated ratings or qualifications issued in accordance with ICAO Annex 1;

(b) is employed, directly or indirectly, by an aeroplane manufacturer;

In this case, the privileges of the holder shall be limited to performing flight instruction and testing for initial issue of type ratings, the supervision of initial line flying by the operators' pilots, delivery or ferry flights, initial line flying, flight demonstrations or test flights.

ANNEX IV TO THE IMPLEMENTING REGULATION

REQUIREMENTS FOR THE CONVERSION OF NATIONAL LICENCES AND RATINGS FOR AEROPLANES AND HELICOPTERS

A. Aeroplanes

1 Pilot licences

A pilot licence issued by a Member State in accordance with national requirements shall be converted into a Part-FCL licence provided the applicant complies with the following requirements:

(a) for ATPL(A) and CPL(A), complete as a proficiency check the revalidation requirements of Part-FCL for type/class and instrument rating, relevant to the privileges of the licence held;

(b) demonstrate knowledge of the relevant parts of Part-OPS and Part-FCL;

(c) demonstrate language proficiency in accordance with FCL.055;

(d) comply with the requirements set out in the table below:

National licence held	Total flying hours experience	Any further requirements	Replacement Part-FCL licence and conditions *(where applicable)*	Removal of conditions	
(1)	(2)	(3)	(4)	(5)	
ATPL(A)	>1500 as PIC on multi-pilot aeroplanes	None	ATPL(A)	Not applicable	(a)
ATPL(A)	>1500 on multi-pilot aeroplanes	None	as in (c)(4)	as in (c)(5)	(b)
ATPL(A)	>500 on multi-pilot aeroplanes	demonstrate knowledge of flight planning and performance as required by Appendix 2 to Part-FCL	ATPL(A), with type rating restricted to co-pilot	Demonstrate ability to act as PIC as required by Appendix 9 to Part-FCL	(c)
CPL/IR(A) and passed an ICAO ATPL theory test in the Member State of licence issue		(i) demonstrate knowledge of flight planning and performance as required by Appendix 2 to Part-FCL (ii) meet remaining requirements of FCL.720.A (c)	CPL/IR(A) with ATPL theory credit	Not applicable	(d)

National licence held	Total flying hours experience	Any further requirements	Replacement Part-FCL licence and conditions *(where applicable)*	Removal of conditions	
(1)	(2)	(3)	(4)	(5)	
CPL/IR(A)	>500 on multi-pilot aeroplanes, or in multi-pilot operations on single-pilot aeroplanes CS- 23 commuter category or equivalent in accordance with the requirements of Part-OPS for commercial air transport .	(i) to pass an examination for ATPL(A) knowledge in the Member State of licence issue * (ii) meet remaining requirements of FCL.720.A (c)	CPL/IR(A) with ATPL theory credit	Not applicable	(e)
CPL/IR(A)	>500 as PIC on single-pilot aeroplanes	none	CPL/IR(A) with type/class ratings restricted to single-pilot aeroplanes		(f)
CPL/IR(A)	<500 as PIC on single-pilot aeroplanes	demonstrate knowledge of flight planning and flight performance as required by Appendix 2 to Part-FCL	as (4)(f)	Obtain multi-pilot type rating in accordance with Part-FCL	(g)
CPL(A)	>500 as PIC on single-pilot aeroplanes	night rating, if applicable	CPL(A), with type/ class ratings restricted to single- pilot aeroplanes		(h)
CPL(A)	<500 as PIC on single-pilot aeroplanes	(i) night rating, if applicable; (ii) demonstrate knowledge of flight performance and planning as required by Appendix 2 to Part-FCL	as (4)(h)		(i)
PPL/IR(A)	≥75 in accordance with IFR	night rating if night flying privileges are not included in the instrument rating	PPL/IR(A) (the IR restricted to PPL)	demonstrate knowledge of flight performance and planning as required by Appendix 2 to Part-FCL	(j)
PPL(A)	≥70 on aeroplanes	demonstrate the use of radio navigation aids	PPL(A)		(k)

* CPL holders already holding a type rating for a multi-pilot aeroplane are not required to have passed an examination for ATPL(A) theoretical knowledge whilst they continue to operate that same aeroplane type, but will not be given ATPL(A) theory credit for a Part-FCL licence. If they require another type rating for a different multi-pilot aeroplane, they must comply with column (3), row (e) (i) of the above table.

2 Instructor certificates

An instructor certificate issued by a Member State in accordance with national requirements shall be converted into a Part-FCL certificate provided the applicant complies with the following requirements:

National certificate or privileges held	Experience	Any further requirements	Replacement Part-FCL certificate
(1)	(2)	(3)	(4)
FI(A)/IRI(A)/TRI(A)/ CRI(A)	as required under Part-FCL for the relevant rating	demonstrate knowledge of the relevant parts of Part-FCL and Part-OPS	FI(A)/IRI(A)/TRI(A)/CRI(A)

II Draft Decision AMC and GM for Part-FCL

Acceptable Means of Compliance and Guidance material

to

Part-FCL

Subpart A

GENERAL REQUIREMENTS

GM to FCL.010

Definitions and Abbreviations

A. Interpretative material

1. Whenever licences, ratings, approvals or certificates are mentioned in Part-FCL, these are meant to be licences, ratings, approvals or certificates issued in accordance with Part-FCL. In all other cases these documents are specified as e.g. ICAO or national licences.
2. Whenever a reference is made to Member State for the purpose of mutual recognition of licences, ratings, approvals or certificates, this means an European Union Member State and States associated to EASA in accordance with article 55 of the Basic Regulation.

B. Definitions

Airmanship

The consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.

Competency element

An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

Competency unit

A discrete function consisting of a number of competency elements.

Credit

Recognition of alternative means or prior qualifications.

Error

An action or inaction by the flight crew that leads to deviations from organizational or flight intentions or expectations.

Error management

The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft states.

Instrument time

Instrument flight time or instrument ground time.

Multi-pilot operation

An operation approved by the Authority requiring at least two pilots using multi-crew co-operation on multi-pilot helicopters.

Other training devices

Training aids other than flight simulators, flight training devices or flight and navigation procedures trainers which provide means for training where a complete flight deck environment is not necessary.

Performance criteria

A simple, evaluative statement on the required outcome of the competency element and a description of the criteria used to judge if the required level of performance has been achieved.

Private pilot

A pilot who holds a licence which prohibits the piloting of aircraft in operations for which remuneration is given.

Proficiency checks

Demonstrations of skill to revalidate or renew ratings, and including such oral examination as the examiner may require.

Renewal (of e.g. a rating or approval)

The administrative action taken after a rating or approval has lapsed that renews the privileges of the rating or approval for a further specified period consequent upon the fulfilment of specified requirements.

Revalidation (of e.g. a rating or approval)

The administrative action taken within the period of validity of a rating or approval that allows the holder to continue to exercise the privileges of a rating or approval for a further specified period consequent upon the fulfilment of specified requirements.

Skill tests

Skill tests are demonstrations of skill for licence or rating issue, including such oral examination as the examiner may require.

Student pilot-in-command (SPIC)

Flight time during which the flight instructor will only observe the student acting as pilot-in-command and shall not influence or control the flight of the aircraft.

Threat

Events or errors that occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.

Threat management

The process of detecting and responding to the threats with countermeasures that reduce or eliminate the consequences of threats, and mitigate the probability of errors or undesired aircraft states.

C. Abbreviations

A	Aeroplane
A/C	Aircraft
AIS	Aeronautical Information Services
AMC	Acceptable Means of Compliance
AeMC	Aeromedical Centre

AME	Authorised Medical Examiner
As	Airship
ATC	Air Traffic Control
ATO	Approved Training Organisation
ATP	Airline Transport Pilot
ATPL	Airline Transport Pilot Licence
B	Balloon
BPL	Balloon Pilot Licence
CFI	Chief Flying Instructor
CGI	Chief Ground Instructor
CP	Co-pilot
CPL	Commercial Pilot Licence
CRE	Class Rating Examiner
CRI	Class Rating Instructor
CRM	Crew Resource Management
CQB	Central Question Bank
FCL	Flight Crew Licensing
FE	Flight Examiner
F/E	Flight Engineer
FI	Flight Instructor
FIE	Flight Instructor Examiner
FNPT	Flight and Navigation Procedures Trainer
FS	Flight Simulator
FTD	Flight Training Device
H	Helicopter
HPA	High Performance Aeroplane
HT	Head of Training
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
IR	Instrument Rating
IRE	Instrument Rating Examiner
IRI	Instrument Rating Instructor

LPL	Leisure Pilot Licence
LOFT	Line Orientated Flight Training
MCC	Multi Crew Co-operation
ME	Multi-engine
MEL	Minimum Equipment List
MEP	Multi-engine Piston
MET	Multi-engine Turbo-prop
MPA	Multi-pilot Aeroplane
MPL	Multi-crew Pilot Licence
MPH	Multi-pilot Helicopter
nm	Nautical Miles
OML	Operational Multi-crew Limitation
OSL	Operational Safety Pilot Limitation
OTD	Other Training Devices
PF	Pilot Flying
PIC	Pilot-In-Command
PICUS	Pilot-In-Command Under Supervision
PL	Powered-lift
PNF	Pilot Not Flying
PPL	Private Pilot Licence
R/T	Radiotelephony
SE	Single-engine
SEP	Single Engine Piston
SET	Single-engine Turbo-prop
SFE	Synthetic Flight Examiner
SFI	Synthetic Flight Instructor
SPA	Single-pilot Aeroplane
SPH	Single-pilot Helicopter
SPIC	Student Pilot-In-Command
SPL	Sailplane Pilot Licence
STD	Synthetic Training Devices
STI	Synthetic Training Instructor
TEM	Threat and Error Management

TMG	Touring Motor Glider
TR	Type Rating
TRE	Type Rating Examiner
TRI	Type Rating Instructor
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
ZFTT	Zero Flight Time Training

AMC to FCL.050

Recording of flight time

1. The record of the flights flown should contain at least the following information:
   - 1.1 Personal details - Name and address of the pilot;
   - 1.2 For each flight:
     - a. Name of Pilot-in-command;
     - b. Date of flight;
     - c. Place and time of departure and arrival;
     - d. Type, including make, model and variant, and registration of the aircraft;
     - e. Indication if the aircraft is single engine or multi engine;
     - f. Total time of flight;
     - g. Accumulated total time of flight;
   - 1.3 For each flight simulator or FNPT session:
     - a. Type and qualification number of the training device;
     - b. Synthetic training device instruction;
     - c. Date;
     - d. Total time of session;
     - e. Accumulated total time;
   - 1.4 Details on pilot function, namely pilot-in-command, including solo, student pilot-in-command and pilot in command under supervision time, co-pilot, dual, flight instructor or flight examiner;
   - 1.5 Operational conditions, namely if the operation takes place at night, or is conducted under instrument flight rules.
2. Logging of time
   - 2.1. Pilot-in-command flight time
     - a. The holder of a licence may log as pilot-in-command time all of the flight time during which he is the pilot-in-command.
     - b. The applicant for or the holder of a pilot licence may log as pilot-in-command time all solo flight time and flight time as student pilot-in-command provided that such SPIC time is countersigned by the instructor.

c. The holder of an instructor certificate may log as pilot-in-command all flight time during which he acts as an instructor in an aircraft..

d. The holder of an examiner's certificate may log as pilot-in-command all flight time during which he occupies a pilot's seat and acts as an examiner in an aircraft.

e. A co-pilot acting as pilot-in-command under supervision on an aircraft on which more than one pilot is required under the type certification of the aircraft or as required by Part-OPS provided such pilot-in-command time under supervision is countersigned by the pilot-in-command.

f. If the holder of a licence carries out a number of flights upon the same day returning on each occasion to the same place of departure and the interval between successive flights does not exceed thirty minutes, such series of flights may be recorded as a single entry.

2.2. Co-pilot flight time. The holder of a pilot licence occupying a pilot seat as co-pilot may log all flight time as co-pilot flight time on an aircraft on which more than one pilot is required under the type certification of the aircraft, or the regulations under which the flight is conducted.

2.3. Cruise relief co-pilot flight time. A cruise relief co-pilot pilot may log all flight time as co-pilot when occupying a pilot's seat.

2.4. Instruction time. A summary of all time logged by an applicant for a licence or rating as flight instruction, instrument flight instruction, instrument ground time, etc. may be logged if certified by the appropriately rated and/or authorised instructor from whom it was received.

2.5. PICUS (Pilot-in-command under supervision). Provided that the method of supervision is acceptable to the Authority, a co-pilot may log as PIC flight time flown as PICUS, when all of the duties and functions of PIC on that flight were carried out, such that the intervention of the PIC in the interest of safety was not required.

3. Format of the record.

Details of flights flown under commercial air transport may be recorded in a computerised format maintained by the operator. In this case an operator should make the records of all flights operated by the pilot, including differences and familiarisation training, available on request to the flight crew member concerned.

For other types of flight, the pilot should record the details of the flights flown in the following logbook format.

PILOT LOGBOOK

_____

Holder's name

_____

Holder's licence number

HOLDER'S ADDRESS:	
_____ _____ _____	_____ _____ _____ *[space for address change]*
_____ _____ _____ *[space for address change]*	_____ _____ _____ *[space for address change]*
_____ _____ _____ *[space for address change]*	_____ _____ _____ *[space for address change]*

1	2		3		4		5				6		7	8	
DATE (dd/mm/yy)	DEPARTURE		ARRIVAL		AIRCRAFT		SINGLE PILOT TIME		MULTI-PILOT TIME		TOTAL TIME OF FLIGHT		NAME PIC	LANDINGS	
	PLACE	*TIME*	*PLACE*	*TIME*	*MAKE, MODEL, VARIANT*	*REGISTRATION*	*SE*	*ME*						*DAY*	*NIGHT*
							TOTAL THIS PAGE								
							TOTAL FROM PREVIOUS PAGES								
							TOTAL TIME								

9				10								11				12
OPERATIONAL CONDITION TIME				PILOT FUNCTION TIME								SYNTHETIC TRAINING DEVICES SESSION				REMARKS AND ENDORSEMENTS
NIGHT		*IFR*		*PILOT-IN-COMMAND*		*CO-PILOT*		*DUAL*		*INSTRUCTOR*		*DATE (dd/mm/yy)*	*TYPE*	*TOTAL TIME OF SESSION*		
																I certify that the entries in this log are true.
TOTAL THIS PAGE																
TOTAL FROM PREVIOUS PAGES																**PILOT'S SIGNATURE**
TOTAL TIME																

INSTRUCTIONS FOR USE

1. FCL.050 requires holders of a pilot licence to record details of all flights flown. This logbook enables pilot licence holders to record flying experience in a manner which will facilitate this process while providing a permanent record of the licence holders flying. Pilots who fly regularly aeroplanes and helicopters or other aircraft types are recommended to maintain separate logbooks for each type of flying.

2. Flight crew logbook entries should be made as soon as practicable after any flight undertaken. All entries in the logbook should be made in ink or indelible pencil.

3. The particulars of every flight in the course of which the holder of a flight crew licence acts as a member of the operating crew of an aircraft are to be recorded in the appropriate columns using one line for each flight, provided that if an aircraft carries out a number of flights upon the same day returning on each occasion to the same place of departure and the interval between successive flights does not exceed thirty minutes, such series of flights may be recorded as a single entry.

4. Flight time is recorded:

   (i) for aeroplanes, touring motor gliders and powered lift, from the moment an aircraft first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

   (ii) for helicopters, from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

   (iii) for airships, from the moment an airship is released from the mast for the purpose of taking off until the moment the airship finally comes to rest at the end of the flight, and is secured on the mast;

5. When an aircraft carries two or more pilots as members of the operating crew, one of them shall, before the flight commences, be designated by the operator as the aircraft pilot-in-command, in accordance with Part-OPS, who may delegate the conduct of the flight to another suitable qualified pilot. All flying carried out as pilot-in-command is entered in the log book as 'pilot-in-command'. A pilot flying as 'pilot-in-command under supervision' or 'student pilot-in-command' enters flying times as 'pilot-in-command' but all such are certified by the pilot-in-command or flight instructor in the 'Remarks' column of the logbook.

6. **Notes on recording of flight time:**

   - Column 1: enter date (dd/mm/yy) on which the flight commences.
   - Column 2/3:enter place of departure and destination either in full or the internationally recognised three or four letter designator. All times should be UTC.
   - Column 5: Indicate whether the operation was single or multi-pilot, and for single-pilot operation whether single or multi-engine.

Example:

1	2		3		4		5				6		7	8	
DATE (dd/mm/yy)	DEPARTURE		ARRIVAL		AIRCRAFT		SINGLE PILOT TIME		MULTI-PILOT TIME		TOTAL TIME OF FLIGHT		NAME PIC	LANDINGS	
	PLACE	*TIME*	*PLACE*	*TIME*	*MAKE, MODEL, VARIANT*	*REGISTRATION*	*SE*	*ME*						*DAY*	*NIGHT*
14/11/98	LFAC	1025	EGBJ	1240	PA34-250	G-SENE		✓			2	15	SELF	1	
15/11/98	EGBJ	1810	EGBJ	1930	C152	G-NONE	✓				1	20	SELF		2
22/11/98	LGW	1645	LAX	0225	B747-400	G-ABCD			9	40	9	40	SPEAKIN		1

- Column 6: total time of flight may be entered in hours and minutes or decimal notation as desired.
- Column 7: enter name of pilot-in-command or SELF as appropriate.
- Column 8: indicate number of landings as pilot flying by day and/or night.
- Column 9: enter flight time undertaken at night or under instrument flight rules if applicable.
- Column 10: Pilot function time:
  - enter flight time as pilot-in-command (PIC), student pilot-in-command (SPIC) and pilot-in-command under supervision (PICUS) as PIC.
  - all time recorded as SPIC or PICUS is countersigned by the aircraft pilot-in-command/flight instructor in the Remarks (column 12).
  - instructor time should be recorded as appropriate and also entered as PIC.
- Column 11: Flight Simulator (FS) or Flight Navigation Procedures Trainer (FNPT):
  - for FS enter type of aircraft and qualification number of the device. For other flight training devices enter either FNPT I or FNPT II as appropriate.

Total time of session includes all exercises carried out in the device, including pre- and after-flight checks.

Enter type of exercise performed in the Remarks (column 12), e.g. operator proficiency check, revalidation.

- Column 12: the Remarks column may be used to record details of the flight at the holder's discretion. The following entries, however, should always be made:

    - instrument flight time undertaken as part of training for a licence or rating
    - details of all skill tests and proficiency checks
    - signature of PIC if the pilot is recording flight time as SPIC or PICUS
    - signature of instructor if flight is part of a single-engine piston or touring motor glider class rating revalidation

7. When each page is completed, accumulated flight times should be entered in the appropriate columns and certified by the pilot in the Remarks column.

Example:

9				**10**								**11**				**12**
OPERATIONAL CONDITION TIME				PILOT FUNCTION TIME								SYNTHETIC TRAINING DEVICES SESSION				REMARKS AND ENDORSEMENTS
NIGHT		*IFR*		*PILOT-IN-COMMAND*		*CO-PILOT*		*DUAL*		*INSTRUCTOR*		*DATE (dd/mm/yy)*	*TYPE*	*TOTAL TIME OF SESSION*		
		2	15	2	15											
1	20			1	20					1	20					Night rating training (A L Pilot)
												20/11/98	B747-400 (Q1234)	4	10	Revalidation Prof Check
8	10	9	40	9	40											PIC(US) C Speaking

AMC No 1 to FCL.055

Language proficiency

1. The language proficiency assessment should be designed to reflect a range of tasks undertaken by pilots but with the specific focus on language rather than operational procedures.

2. The assessment should determine the applicant's ability to:

   - communicate effectively using standard radiotelephony phraseology; and
   - deliver and understand messages in plain language in both usual and unusual situations that necessitate departure from standard radiotelephony phraseology.

Refer to the 'Manual on the Implementation of ICAO Language Proficiency Requirements' (ICAO Doc 9835), Appendix A Part III and Appendix B for further guidance.

ASSESSMENT

3. The assessment may be subdivided into three elements, as follows:

   i. Listening – assessment of comprehension

   ii. Speaking – assessment of pronunciation, fluency, structure and vocabulary

   iii. Interaction

   3.1 The three elements mentioned above may be combined and they can be covered by using a wide variety of means/technologies.

   3.2 Where appropriate, some or all of these elements may be achieved through the use of the radiotelephony testing arrangements.

   3.3 When the elements of the testing are assessed separately, the final assessment should be consolidated in the language proficiency endorsement issued by the Authority.

   3.4 The assessment may be conducted during one of the several existing checking or training activities, such as licence issue or rating issue and revalidation, line training, operator line checks or proficiency checks.

4. The Authority may use its own resources in developing or conducting the language proficiency assessment, or may delegate this task to language assessment bodies.

5. The Authority should establish an appeal procedure for applicants.

6. The licence holder should receive a statement containing the level and validity of the language endorsements

7 Where the assessment method for English language established by the competent authority are equivalent to those established for the assessment of use of English language in accordance with AMC No 2 to FCL.055, the same assessment may be used for both purposes.

BASIC ASSESSMENT REQUIREMENTS

7. The aim of the assessment is to determine the ability of an applicant for a pilot licence or a licence holder to speak and understand the language used for radiotelephony communications.

   7.1 The assessment should determine the ability of the applicant to use both:

   - standard radiotelephony phraseology; and
   - plain language, in situations when standardised phraseology cannot serve an intended transmission.

   7.2 The assessment should include:

   - voice-only and/or face-to face situations
   - common, concrete and work-related topics for pilots.

7.3 The applicants should demonstrate their linguistic ability in dealing with an unexpected turn of events, and in solving apparent misunderstandings.

7.4 The assessment should determine the applicant's speaking and listening abilities. Indirect assessments, of grammatical knowledge, reading and writing, are not appropriate.

7.5 The assessment should determine the language skills of the applicant in the following areas:

a. Pronunciation:

- the extent to which the pronunciation, stress, rhythm and intonation are influenced by the applicant's first language or national variations; and
- how much they interfere with ease of understanding.

b. Structure:

- the ability of the applicant to use both basic and complex grammatical structures; and
- the extent to which the applicant's errors interfere with the meaning.

c. Vocabulary:

- the range and accuracy of the vocabulary used; and
- the ability of the applicant to paraphrase successfully when lacking vocabulary

d. Fluency:

- tempo
- hesitancy
- rehearsed versus spontaneous speech
- use of discourse markers and connectors

e. Comprehension:

- on common, concrete and work-related topics; and
- when confronted with a linguistic or situational complication or an unexpected turn of events,

NOTE: The accent or variety of accents used in the test material should be sufficiently intelligible for an international community of users.

f. Interactions

- quality of response (immediate, appropriate, and informative)
- the ability to initiate and maintain exchanges:
  - on common, concrete and work-related topics; and
  - when dealing with an unexpected turn of events
- the ability to deal with apparent misunderstandings by checking, confirming or clarifying.

NOTE: The assessment of the language skills in the areas mentioned above is conducted using the Rating Scale bellow.

7.6 When the assessment is not conducted in a face-to-face situation, it should use appropriate technologies for the assessment of the applicant's abilities in listening and speaking, and for enabling interactions (for example: simulated pilot/controller communication).

ASSESSORS

8. It is essential that the persons responsible for language proficiency assessment ('assessors') are suitably trained and qualified. They should be either aviation specialists (i.e. current or

former flight crew members or air traffic controllers), or language specialists with additional aviation-related training. An alternative approach would be to form an assessment team consisting of an operational expert and a language expert.

8.1 The assessors should be trained on the specific requirements of the assessment.

8.2 Assessors should not test applicants to whom they have given language training.

CRITERIA FOR THE ACCEPTABILITY OF LANGUAGE ASSESSMENT BODIES

9. In order to ensure an impartial assessment process, the language assessment should be independent of the language training.

9.1 In order to be accepted, the language assessment bodies should demonstrate:

a. Appropriate management and staffing, and

b. Quality System established and maintained to ensure compliance with, and adequacy of, assessment requirements, standards and procedures.

9.2 The Quality system established by a language assessment body should address the following:

a. Management

b. Policy and strategy

c. Processes

d. The relevant provisions of ICAO / JAR-FCL, standards and assessment procedures

e. Organisational structure

f. Responsibility for the development, establishment and management of the Quality System

g. Documentation

h. Quality Assurance Programme

i. Human Resources and training (initial, recurrent)

j. Assessment requirements

k. Customer satisfaction

9.3 The assessment documentation and records should be kept for a period of time determined by the Authority and made available to the Authority, on request.

9.4 The assessment documentation should include at least the following:

a. Assessment objectives

b. Assessment layout, time scale, technologies used, assessment samples, voice samples

c. Assessment criteria and standards (at least for the levels 4, 5 and 6 of the Rating Scale bellow)

d. Documentation demonstrating the assessment validity, relevance and reliability

e. Assessment procedures and responsibilities

- Preparation of individual assessment

- Administration: location(s), identity check and invigilation, assessment discipline, confidentiality/security

- Reporting and documentation provided to the Authority and/or to the applicant, including sample certificate

- Retention of documents and records

NOTE: Refer to the 'Manual on the Implementation of ICAO Language Proficiency Requirements' (ICAO Doc 9835) for further guidance.

Language Proficiency Rating Scale

LEVEL	PRONUNCIATION Assumes a dialect and/or accent intelligible to the aeronautical community	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Expert (Level 6)	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues, and responds to them appropriately.
Extended (Level 5)	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
Operational (Level 4)	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances,	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work related topics. Can often paraphrase successfully	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but	Comprehension is mostly accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with

LEVEL	PRONUNCIATION Assumes a dialect and/or accent intelligible to the aeronautical community	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
		but rarely interfere with meaning.	when lacking vocabulary particularly in unusual or unexpected circumstances.	this does not prevent effective communication. Can make limited use of discourse markers and connectors. Fillers are not distracting.	When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	apparent misunderstandings by checking, confirming, or clarifying.
Pre-operational (Level 3)	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate effectively on common, concrete, and work related topics but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fall to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
Elementary (Level 2)	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of filers to search for expressions and articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow, and often inappropriate. Interaction is limited to simple routine exchanges.
Pre-elementary (Level 1)	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

NOTE: The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication.

Levels 1 through 3 describe Pre-elementary, Elementary and Pre-operational levels of language proficiency respectively, all of which describe a level below the language proficiency requirement.

Levels 5 and 6 describe Extended and Expert levels at levels of proficiency more advanced than the minimum required standard.

SUBPART B
LEISURE PILOT LICENCE – LPL

AMC to FCL.115 and FCL.120

SYLLABUS OF THEORETICAL KNOWLEDGE FOR THE LEISURE PILOT LICENCE

The following tables contain the syllabi for the courses of theoretical knowledge, as well as for the theoretical knowledge examinations for the LPL. The training and examination should cover aspects related to non-technical skills in an integrated manner, taking into account the particular risks associated to the licence and the activity.

I. COMMON SUBJECTS

(FOR BASIC LPL, LPL(A), LPL(H), LPL(S) AND LPL(B))

1.	**AIR LAW AND ATC PROCEDURES**
1.1.	INTERNATIONAL LAW: CONVENTIONS, AGREEMENTS AND ORGANISATIONS
1.2.	AIRWORTHINESS OF AIRCRAFT
1.3.	AIRCRAFT NATIONALITY AND REGISTRATION MARKS
1.4.	PERSONNEL LICENSING
1.5.	RULES OF THE AIR
1.6.	PROCEDURES FOR AIR NAVIGATION – AIRCRAFT OPERATIONS
1.7.	AIR TRAFFIC REGULATIONS – AIRSPACE STRUCTURE
1.8.	AIR TRAFFIC SERVICES AND AIR TRAFFIC MANAGEMENT
1.9.	AIR TRAFFIC REGULATIONS – AIRSPACE STRUCTURE
1.10.	AERONAUTICAL INFORMATION SERVICE
1.11.	AERODROMES, EXTERNAL TAKE OFF SITES
1.12.	SEARCH AND RESCUE
1.13.	SECURITY
1.14.	ACCIDENT REPORTING
1.15.	NATIONAL LAW
2.	**HUMAN PERFORMANCE**
2.1.	HUMAN FACTORS: BASIC CONCEPTS
2.2.	BASIC AVIATION PHYSIOLOGY AND HEALTH MAINTENANCE
2.3.	BASIC AVIATION PSYCHOLOGY
3.	**EOROLOGY**
3.1.	THE ATMOSPHERE
3.2.	WIND
3.3.	THERMODYNAMICS
3.4.	CLOUDS AND FOG
3.5.	PRECIPITATION
3.6.	AIR MASSES AND FRONTS
3.7.	**19. PRESSURE SYSTEMS**

3.8.	CLIMATOLOGY
3.9.	FLIGHT HAZARDS
3.10.	METEOROLOGICAL INFORMATION
4.	**COMMUNICATIONS**
4.1.	VFR COMMUNICATIONS
4.2.	DEFINITIONS
4.3.	GENERAL OPERATING PROCEDURES
4.4.	RELEVANT WEATHER INFORMATION TERMS (VFR)
4.5.	ACTION REQUIRED TO BE TAKEN IN CASE OF COMMUNICATION FAILURE
4.6.	DISTRESS AND URGENCY PROCEDURES
4.7.	GENERAL PRINCIPLES OF VHF PROPAGATION AND ALLOCATION OF FREQUENCIES

II. ADDITIONAL SUBJECTS FOR EACH CATEGORY

II.A. AEROPLANES

5.	**PRINCIPLES OF FLIGHT**
5.1.	SUBSONIC AERODYNAMICS
5.2.	STABILITY
5.3.	CONTROL
5.4.	LIMITATIONS
5.5.	PROPELLERS
5.6.	FLIGHT MECHANICS
6.	**OPERATIONAL PROCEDURES - AEROPLANE**
6.1.	GENERAL REQUIREMENTS
6.2.	SPECIAL OPERATIONAL PROCEDURES AND HAZARDS (GENERAL ASPECTS)
6.3.	EMERGENCY PROCEDURES
7.	**FLIGHT PERFORMANCE AND PLANNING - AEROPLANES**
7.1.	MASS AND BALANCE - AEROPLANES
7.1.2.	PURPOSE OF MASS AND BALANCE CONSIDERATIONS
7.1.3.	LOADING
7.1.4.	FUNDAMENTALS OF CG CALCULATIONS
7.1.5.	MASS AND BALANCE DETAILS OF AIRCRAFT
7.1.6.	DETERMINATION OF CG POSITION
7.2.	PERFORMANCE – AEROPLANES
7.2.1.	GENERAL
7.2.2.	SINGLE-ENGINE AEROPLANES
7.3.	FLIGHT PLANNING AND FLIGHT MONITORING

7.3.1.	FLIGHT PLANNING FOR VFR FLIGHTS
7.3.2.	FUEL PLANNING
7.3.3.	PRE-FLIGHT PREPARATION
7.3.4.	ICAO FLIGHT PLAN (ATS Flight Plan)
7.3.5.	FLIGHT MONITORING AND IN-FLIGHT RE-PLANNING
8.	**AIRCRAFT GENERAL KNOWLEDGE – AIRFRAME AND SYSTEMS, ELECTRICS, POWERPLANT, EMERGENCY EQUIPMENT**
8.1.1.	SYSTEM DESIGN, LOADS, STRESSES, MAINTENANCE
8.1.2.	AIRFRAME
8.1.3.	HYDRAULICS
8.1.4.	LANDING GEAR, WHEELS, TYRES, BRAKES
8.1.5.	FLIGHT CONTROLS
8.1.6.	ANTI-ICING SYSTEMS
8.1.7.	FUEL SYSTEM
8.1.8.	ELECTRICS
8.1.9.	PISTON ENGINES
8.2.	AIRCRAFT INSTRUMENTATION
8.2.1	SENSORS AND INSTRUMENTS
8.2.2.	MEASUREMENT OF AIR DATA PARAMETERS
8.2.3.	MAGNETISM – DIRECT READING COMPASS
8.2.4.	GYROSCOPIC INSTRUMENTS
8.2.5.	COMMUNICATION SYSTEMS
8.2.6.	ALERTING SYSTEMS, PROXIMITY SYSTEMS
8.2.7.	INTEGRATED INSTRUMENTS – ELECTRONIC DISPLAYS
9.	**NAVIGATION - AEROPLANE**
9.1.	GENERAL NAVIGATION
9.2.	BASICS OF NAVIGATION
9.3.	MAGNETISM AND COMPASSES
9.4.	CHARTS
9.5.	DEAD RECKONING NAVIGATION (DR)
9.6.	IN-FLIGHT NAVIGATION
9.7.	RADIO NAVIGATION (BASICS)
9.7.1.	BASIC RADIO PROPAGATION THEORY
9.7.2.	RADIO AIDS
9.7.3.	RADAR

9.7.4.	GLOBAL NAVIGATION SATELLITE SYSTEMS

II.B. HELICOPTERS

5.	**PRINCIPLES OF FLIGHT - HELICOPTERS**
5.1.	SUBSONIC AERODYNAMICS
5.2.	TRANSONIC AERODYNAMICS and COMPRESSIBILITY EFFECTS
5.3.	ROTORCRAFT TYPES
5.4.	MAIN ROTOR AERODYNAMICS
5.5.	MAIN ROTOR MECHANICS
5.6.	TAIL ROTORS
5.7.	EQUILIBRIUM, STABILITY AND CONTROL
5.8.	HELICOPTER PERFORMANCES

6.	**OPERATIONAL PROCEDURES - HELICOPTER**
6.1.	GENERAL REQUIREMENTS
6.2.	SPECIAL OPERATIONAL PROCEDURES AND HAZARDS (GENERAL ASPECTS)
6.3.	EMERGENCY PROCEDURES
7.	**FLIGHT PERFORMANCE AND PLANNING - HELICOPTER**
7.1.	MASS AND BALANCE - HELICOPTERS
7.1.1.	PURPOSE OF MASS AND BALANCE CONSIDERATIONS
7.1.2.	LOADING
7.1.3.	FUNDAMENTALS OF CG CALCULATIONS
7.1.4.	MASS AND BALANCE DETAILS OF AIRCRAFT
7.1.5.	DETERMINATION OF CG POSITION
7.2.	PERFORMANCE – HELICOPTERS
7.2.1.	GENERAL
7.2.2.	SINGLE-ENGINE HELICOPTERS
7.3.	FLIGHT PLANNING AND FLIGHT MONITORING
7.3.1.	FLIGHT PLANNING FOR VFR FLIGHTS
7.3.2.	FUEL PLANNING
7.3.3.	PRE-FLIGHT PREPARATION
7.3.4.	ICAO FLIGHT PLAN (ATS Flight Plan)
7.3.5.	FLIGHT MONITORING AND IN-FLIGHT RE-PLANNING
8.	**AIRCRAFT GENERAL KNOWLEDGE – AIRFRAME AND SYSTEMS, ELECTRICS, POWERPLANT, EMERGENCY EQUIPMENT**
8.1.1.	SYSTEM DESIGN, LOADS, STRESSES, MAINTENANCE
8.1.2.	AIRFRAME

8.1.3.	HYDRAULICS
8.1.4.	LANDING GEAR, WHEELS, TYRES, BRAKES
8.1.5.	FLIGHT CONTROLS
8.1.6.	ANTI-ICING SYSTEMS
8.1.7.	FUEL SYSTEM
8.1.8.	ELECTRICS
8.1.9.	PISTON ENGINES
8.1.10.	TURBINE ENGINES
8.1.11.	PROTECTION AND DETECTION SYSTEMS
8.1.12.	MISCELLANEOUS SYSTEMS
8.1.13.	ROTOR HEADS
8.1.14.	TRANSMISSION
8.1.15.	BLADES
8.2.	AIRCRAFT INSTRUMENTATION
8.2.1	INSTRUMENT AND INDICATION SYSTEMS
8.2.2.	MEASUREMENT OF AERODYNAMIC PARAMETERS
8.2.3.	MAGNETISM – DIRECT READING COMPASS
8.2.4.	GYROSCOPIC INSTRUMENTS
8.2.5.	COMMUNICATION SYSTEMS
8.2.6.	ALERTING SYSTEMS, PROXIMITY SYSTEMS
8.2.7.	INTEGRATED INSTRUMENTS – ELECTRONIC DISPLAYS
9.	**NAVIGATION - HELICOPTER**
9.1.	GENERAL NAVIGATION
9.2.	BASICS OF NAVIGATION
9.3.	MAGNETISM AND COMPASSES
9.4.	CHARTS
9.5.	DEAD RECKONING NAVIGATION (DR)
9.6.	INFLIGHT NAVIGATION
9.7.	RADIO NAVIGATION (BASICS)
9.7.1.	BASIC RADIO PROPAGATION THEORY
9.7.2.	RADIO AIDS
9.7.3.	RADAR
9.7.4.	GLOBAL NAVIGATION SATELLITE SYSTEMS

II.C. SAILPLANES

5.	**PRINCIPLES OF FLIGHT - SAILPLANE**
5.1.	AERODYNAMICS (AIRFLOW)

5.2.	FLIGHT MECHANICS
5.3.	STABILITY
5.4.	CONTROL
5.5.	LIMITATIONS (LOAD FACTOR AND MANOEUVRES)
5.6.	STALLING AND SPINNING
6.	**OPERATIONAL PROCEDURES - SAILPLANE**
6.1.	GENERAL REQUIREMENTS
6.2.	LAUNCH METHODS
6.3.	SOARING TECHNIQUES
6.4.	CIRCUITS AND LANDING
6.5.	OUTLANDING
6.6.	SPECIAL OPERATIONAL PROCEDURES AND HAZARDS)
6.7.	EMERGENCY PROCEDURES
7.	**FLIGHT PERFORMANCE AND PLANNING - SAILPLANE**
7.1.	VERIFYING MASS AND BALANCE
7.2.	SPEED POLAR OF SAILPLANES / CRUISING SPEED
7.3.	FLIGHT PLANNING AND TASK SETTING
7.4.	ICAO FLIGHT PLAN (ATS Flight Plan)
7.5.	FLIGHT MONITORING AND IN-FLIGHT RE-PLANNING
8.	**AIRCRAFT GENERAL KNOWLEDGE – AIRFRAME AND SYSTEMS, EMERGENCY EQUIPMENT**
8.1.	AIRFRAME
8.2.	SYSTEM DESIGN, LOADS, STRESSES
8.3.	LANDING GEAR, WHEELS, TYRES, BRAKES
8.4.	MASS AND BALANCE
8.5.	FLIGHT CONTROLS
8.6.	INSTRUMENTS
8.7.	MANUALS AND DOCU MENTS
8.8.	AIRWOTHINESS, MAINTENANCE
9.	**NAVIGATION - SAILPLANE**
9.1.	BASICS OF NAVIGATION
9.2.	MAGNETISM AND COMPASSES
9.3.	CHARTS
9.4.	DEAD RECKONING NAVIGATION (DR)
9.5.	IN-FLIGHT NAVIGATION
9.6.	GLOBAL NAVIGATION SATELLITE SYSTEMS

II.D. BALLOONS

5.	**PRINCIPLES OF FLIGHT - BALLOON**
5.1.	PRINCIPLES OF FLIGHT – BALLOONS
5.2.	AEROSTATICS
5.3.	LOADING LIMITATIONS
5.4.	OPERATIONAL LIMITATIONS
6.	**OPERATIONAL PROCEDURES - BALLOON**
6.1.	GENERAL REQUIREMENTS
6.2.	SPECIAL OPERATIONAL PROCEDURES AND HAZARDS (GENERAL ASPECTS)
6.3.	EMERGENCY PROCEDURES
7.	**FLIGHT PERFORMANCE AND PLANNING - BALLOON**
7.1.	MASS - BALLOONS
7.1.1.	PURPOSE OF MASS CONSIDERATIONS
7.1.2.	LOADING
7.2.	PERFORMANCE – BALLOONS
7.2.1.	GENERAL
7.3.	FLIGHT PLANNING AND FLIGHT MONITORING
7.3.1.	FLIGHT PLANNING - GENERAL
7.3.2.	FUEL PLANNING
7.3.3.	PRE-FLIGHT PREPARATION
7.3.4.	ICAO FLIGHT PLAN (ATS Flight Plan)
7.3.5.	FLIGHT MONITORING AND IN-FLIGHT RE-PLANNING
8.	**AIRCRAFT GENERAL KNOWLEDGE – ENVELOPE AND SYSTEMS, EMERGENCY EQUIPMENT**
8.1.	SYSTEM DESIGN, LOADS, STRESSES, MAINTENANCE
8.2.	ENVELOPE
8.3.	BURNER (HOT AIR BALLOON, HOT AIR AIRSHIP)
8.4.	FUEL CYLINDERS (HOT AIR BALLOON / - AIRSHIP)
8.5.	BASKET / GONDOLA
8.6.	LIFTING GAS (GAS BALLOON)
8.7.	BURNING GAS (HOT AIR BALLOON, - AIRSHIP)
8.8.	BALLAST (GAS BALLOON)
8.9.	ENGINE (HOT AIR AIRSHIP ONLY)
8.10.	INSTRUMENTS
8.11.	EMERGENCY EQUIPMENT
9.	**NAVIGATION - BALLOON**
9.1.	GENERAL NAVIGATION

9.2.	BASICS OF NAVIGATION
9.3.	MAGNETISM AND COMPASSES
9.4.	CHARTS
9.5.	DEAD RECKONING NAVIGATION (DR)
9.6.	IN-FLIGHT NAVIGATION
9.7.	GLOBAL NAVIGATION SATELLITE SYSTEMS

AMC to FCL.120 and FCL.125

Theoretical knowledge examination and skill test for the LPL

1. THEORETICAL KNOWLEDGE EXAMINATION

1.1 The examinations should be in written form and should comprise a total of 120 multiple choice questions covering all the subjects.

1.2 Communication practical classroom testing may be conducted.

1.3 The competent authority should inform applicants of the language(s) in which the examinations will be conducted.

1.4 The period of 18 months mentioned in FCL.025(b) should be counted from the end of the calendar month when the applicant first attempted an examination.

2. SKILL TEST

2.1 Further training may be required following any failed skill test or part thereof. There should be no limit to the number of skill tests that may be attempted.

3. CONDUCT OF THE TEST

3.1 If the applicant chooses to terminate a skill test for reasons considered inadequate by the flight examiner, the applicant should retake the entire skill test. If the test is terminated for reasons considered adequate by the flight examiner, only those sections not completed should be tested in a further flight.

3.2 Any manoeuvre or procedure of the test may be repeated once by the applicant. The flight examiner may stop the test at any stage if it is considered that the applicant's demonstration of flying skill requires a complete retest.

3.3 An applicant should be required to fly the aircraft from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member. Responsibility for the flight should be allocated in accordance with national regulations.

AMC No 1 to FCL.125 and to FCL.235

Contents of the skill test for the issue of a LPL(S) and of an SPL

1. The applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are on board.

2. An applicant should indicate to the FE the checks and duties carried out. Checks should be completed in accordance with the flight manual and/or the authorised check list for the sailplane on which the test is being taken.

FLIGHT TEST TOLERANCE

3. The applicant should demonstrate the ability to:

– operate the sailplane within its limitations;

- complete all manoeuvres with smoothness and accuracy;
- exercise good judgment and airmanship;
- apply aeronautical knowledge; and
- maintain control of the sailplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

SECTION 1 **PRE-FLIGHT OPERATIONS AND DEPARTURE**	
Use of checklist, airmanship (control of sailplane by external visual reference), lookout, apply in all sections.	
a	Pre-flight sailplane (daily) inspection, documentation and weather brief
b	Verifying in-limits mass and balance and performance calculation
c	Sailplane servicing compliance
d	Pre take-off checks
SECTION 2 **LAUNCH METHOD** Note: At least for one of the three launch methods all the mentioned items are fully exercised during the skill test.	
SECTION 2 (A) **WINCH OR CAR LAUNCH**	
a	Signals before and during launch, including messages to winch driver
b	Adequate profile of winch launch
c	Launch failures (simulated)
d	Situational awareness
SECTION 2 (B) **AEROTOW LAUNCH**	
a	Signals before and during launch, including signals to / communications with tow plane pilot for any problems
b	Initial roll, take-off climb
c	Launch abandonment (simulation only or 'talk-through')
d	Correct positioning during straight flight and turns
e	Out of position and recovery
f	Correct release from tow
g	Lookout and airmanship through whole launch phase
SECTION 2 (C) **SELF LAUNCH** (powered sailplanes only)	
a	ATC liaison – compliance
b	Aerodrome departure procedures
c	Initial roll, take-off climb

d	Lookout and airmanship during the whole take-off
e	Simulated engine failure after take off
f	Engine shut down and stowage
	SECTION 3 **GENERAL AIRWORK**
a	Maintain straight and level flight; attitude and speed control
b	Co-ordinated medium (30° bank) turns, look out procedures and collision avoidance
c	Turning on to selected headings visually and with use of compass
d	Flight at high angle of attack (critically low airspeed)
e	Clean stall and recovery
f	Spin avoidance and recovery
g	Steep (45° bank) turns, look out procedures and collision avoidance
	SECTION 4 **CIRCUIT, APPROACH AND LANDING**
a	Aerodrome circuit joining procedure
b	Collision avoidance - look out procedures
c	Pre landing checks
d	Circuit, approach control, landing
e	Precision landing (simulation of out-landing - short field)
f	Cross wind landing if suitable conditions available

AMC to FCL.110.S and to FCL.210.S

FLIGHT INSTRUCTION FOR THE LEISURE PILOT (SAILPLANES) AND THE SAILPLANE PILOT LICENCE (SPL)

1. ENTRY TO TRAINING

1.1 Before starting training an applicant should be informed that the appropriate medical certificate must be obtained before solo flying is permitted.

2. FLIGHT INSTRUCTION

2.1 The LPL (S) / SPL flight instruction syllabus should take into account the principles of threat and error management and also cover:

(a) pre-flight operations, including verifying mass and balance, aircraft inspection and servicing;

(b) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(c) control of the aircraft by external visual reference;

(d) flight at high angle of attack (critically low airspeeds), recognition of, and recovery from, incipient and full stalls and spins;

(e) flight at critically high airspeeds, recognition of, and recovery from spiral dive;

(f) normal and crosswind take-offs in respect with the different launch methods;

(g) normal and crosswind landings

(h) short field landings and outlandings – field selection, circuit and landing hazards and precautions

(i) cross-country flying using visual reference, dead reckoning and available navigation aids;

(j) soaring techniques as appropriate to site conditions

(k) emergency actions

(l) compliance with air traffic services procedures and communication procedures.

2.2 Before allowing the applicant for a LPL(S) / SPL to undertake his/her first solo flight, the flight instructor should ensure that the applicant can operate the required systems and equipment.

3. SYLLABUS OF FLIGHT INSTRUCTION

3.1. The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide; therefore the demonstrations and practices need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:

- The applicant's progress and ability
- The weather conditions affecting the flight
- The flight time available
- Instructional technique considerations
- The local operating environment
- Applicability of the exercises to the sailplane type

3.2. At the discretion of the instructors some of the exercises may be combined and some other exercises may be done in several flights.

3.3. Each of the exercises involves the need for the pilot-under-training to be aware the needs of good airmanship and look-out, which should be emphasised at all times.

Exercise 1: Familiarisation with the sailplane

– characteristics of the sailplane
– cockpit layout – instruments and equipment
– flight controls – stick, pedals, airbrakes, flaps, cable release, undercarriage
– check lists, drills, controls

Exercise 2: Procedures in the event of emergencies

– use of safety equipment (parachute)
– action in the event of system failures
– bail-out procedures

Exercise 3: Preparation for flight

– pre-flight briefings
– required documents on board
– equipment required for the intended flight
– ground handling / movements/ tow out, parking, security
– pre-flight external and internal checks

- verifying in-limits mass and balance
- harness, seat and/or rudder panel adjustments
- pre-launch checks

Exercise 4: Initial air experience

- area familiarization
- lookout procedures

Exercise 5: Effects of controls

- lookout procedures
- use of visual references
- primary effects when laterally level and when banked
- reference attitude and effect of elevator
- relationship between attitude and speed
- effects of:
  - flaps (if available)
  - airbrakes

Exercise 6: Moderate Banking and Coordination

- lookout procedures
- further effects of aileron (adverse yaw) and rudder (roll)
- coordination
- banking at moderate angle, return to level flight

Exercise 7: Straight flying

- lookout procedures
- maintaining straight flight
- flight at critically high airspeeds
- demonstration of inherent pitch stability
- control in pitch, including use of trim
- lateral level, direction and balance, trim
- airspeed: instrument monitoring and control

Exercise 8: Turning

- lookout procedures
- demonstration and correction of adverse yaw
- entry to turn (medium level turns)
- stabilizing turns
- exiting turns
- faults in the turn (slipping / skidding)
- turns on to selected headings, use of compass
- use of instruments (ball indicator and/or slip string) for precision

Exercise 9A: Slow flight

NOTE: The objective is to improve the student's ability to recognise inadvertent flight at critically low speeds (high angle of attack) and to provide practice in maintaining the sailplane in balance while returning to normal attitude (speed).

- safety checks
- introduction to characteristics of slow flight
- controlled flight down to critically high angle of attack (slow airspeed)

Exercise 9B: Stalling

- safety checks
- pre-stall symptoms, recognition and recovery
- stall symptoms, recognition and recovery
- recovery when a wing drops
- approach to stall in the approach and in the landing configurations
- recognition and recovery from accelerated stalls

Exercise 10: Spin recognition and avoidance

- safety checks
- stalling and recovery at the incipient spin stage (stall with excessive wing drop, about 45°)
- Instructor induced distractions during the spin entry

NOTE: Consideration of manoeuvre limitations and the need to refer to the sailplane manual and mass and balance calculations.

Exercise 11: Take-off / Launch methods

NOTE: At least one launch method must be taught containing all the subject below.

Exercise 11A: Winch launch

- signals and /or communication before and during launch
- use of the launching equipment
- pre-take-off checks
- into wind take-off
- crosswind take-off
- optimum profile of winch launch and limitations
- launch failure procedures

Exercise 11B: Aero tow

- signals and/or communication before and during launch
- use of the launch equipment
- pre-take-off checks
- into wind take-off
- crosswind take-off
- on tow – straight flight / turning / slip stream
- out of position in tow and recovery
- descending on tow (towing aircraft and sailplane)
- launch failure and abandonment

Exercise 11C: Self-launch

- engine extending and retraction procedures
- engine starting and safety precautions
- pre-take-off checks
- noise abatement procedures
- checks during and after take off
- into wind take-off
- crosswind take-off
- power failures / procedures
- abandoned take-off
- maximum performance (short field and obstacle clearance) take-off
- short take-off and soft field procedure / techniques and performance calculations

Exercise 11D: Car launch

- signals before and during launch
- use of the launch equipment
- pre-take-off checks
- into wind take-off
- crosswind take-off
- optimum launch profile and limitations
- launch failure procedures

Exercise 11E: Bungee launch

- signals before and during launch
- use of the launch equipment
- pre-take-off checks
- into wind take-off

Exercise 12: Soaring techniques

Exercise 12A: Thermalling

- lookout procedures
- detection and recognition of thermals
- use of audio soaring instruments
- joining a thermal and giving way
- flying in close proximity to other sailplanes
- centring in thermals
- leaving thermals

Exercise 12B: Ridge flying (if applicable during training and if possible at training site)

- lookout procedures
- practical application of ridge flying rules
- optimisation of flight path

- speed control

Exercise 12C: Wave flying (if applicable during training and if possible at training site)

- lookout procedures
- wave access techniques
- speed limitations with increasing height
- use of oxygen

Exercise 13: Circuit, approach and landing

- procedures for rejoining the circuit
- collision avoidance, look out techniques and procedures
- circuit procedures, downwind, base leg
- effect of wind on approach and touchdown speeds
- use of flaps (if applicable)
- visualisation of an aiming point
- approach control and use of airbrakes
- normal and crosswind approach and landing
- short landing procedures/techniques

Exercise 14: First solo

- instructor's briefing including limitations
- awareness of local area, restrictions
- use of required equipment
- observation of flight and debriefing by instructor

Exercise 15: Advanced turning

- steep turns (45°)
- stalling and spin avoidance in the turn and recovery
- recoveries from unusual attitudes, including spiral dives

Exercise 16: Out-landings

- gliding range
- re- start procedures (only for self-launching and self-sustaining sailplanes)
- selection of landing area
- circuit judgement and key positions
- circuit and approach procedures
- actions after landing

Exercise 17: Cross country flying

Exercise 17A: Flight Planning

- weather forecast and actuals
- NOTAMS, airspace considerations
- map selection and preparation
- route planning
- radio frequencies (if applicable)

- pre-flight administrative procedure
- flight plan where required
- mass and performance
- alternate aerodromes and landing areas
- safety altitudes

Exercise 17B: In-Flight Navigation

- maintaining track and re-routing considerations
- altimeter settings
- use of radio and phraseology
- in-flight planning
- procedures for transiting regulated airspace / ATC liaison where required
- uncertainty of position procedure
- lost procedure
- use of additional equipment where required
- joining, arrival and circuit procedures at remote aerodrome

Exercise 17C: Cross country techniques

- lookout procedures
- maximising potential cross-country performance
- risk reduction and threat reaction

AMC to FCL.135.S and FCL.225.S

Extension of privileges to touring motor gliders - LPL(S) and SPL

1. The aim of the flight training is to qualify LPL(S)/SPL holders to exercise the privileges of the licence on a TMG.
2. The approved training organisation should issue a certificate of satisfactory completion of the training.
3. THEORETICAL KNOWLEDGE

The theoretical knowledge syllabus should cover the revision and/or explanation of:

3.1. Principles of flight

- operating limitations (addition touring motor gliders)
- propellers
- flight mechanics

3.2. Operational Procedures for touring motor gliders

- special operational procedures and hazards
- emergency procedures

3.3. Flight performance and planning

- mass and balance considerations
- loading
- CG calculation
- load and trim sheet

- performance of touring motor gliders
- flight planning for VFR flights
- fuel planning
- pre-flight preparation
- ICAO flight plan
- flight monitoring and in-flight re-planning

3.4. Aircraft general knowledge

- system designs, loads, stresses, maintenance
- airframe
- Hydraulics
- landing gear, wheels, tyres, brakes
- fuel system
- electrics
- piston engines
- propellers
- instrument and indication systems
- measurement of aerodynamic parameters

3.5. Navigation

- dead reckoning navigation (addition powered flying elements)
- in flight navigation (addition powered flying elements)
- basic radio propagation theory
- radio aids (basics)
- radar (basics)
- global navigation satellite systems

4. FLIGHT INSTRUCTION

The flying exercises should cover the revision and/or explanation of the following exercises:

Exercise 1: Familiarisation with the touring motor glider

- characteristics of the touring motor glider
- cockpit layout
- systems
- check lists, drills, controls

Exercise 1E: Emergency drills

- action in the event of fire on the ground and in the air
- engine cabin and electrical system fire
- systems failure
- escape drills, location and use of emergency equipment and exits

Exercise 2: Preparation for and action after flight

- serviceability documents

- equipment required, maps, etc.
- external checks
- internal checks
- harness, seat or rudder panel adjustments
- starting and warm up checks
- power checks
- running down system checks and switching off the engine
- parking, security and picketing (e.g. tie down)
- completion of authorisation sheet and serviceability documents

Exercise 3: Taxiing

- pre-taxi checks
- starting, control of speed and stopping
- engine handling
- control of direction and turning
- turning in confined spaces
- parking area procedure and precautions
- effects of wind and use of flying controls
- effects of ground surface
- freedom of rudder movement
- marshalling signals
- instrument checks
- air traffic control procedures

Exercise 3E: Emergencies

- Brake and steering failure

Exercise 4: Straight and level

- at normal cruising power, attaining and maintaining straight and level flight
- flight at critically high airspeeds
- demonstration of inherent stability
- control in pitch, including use of trim
- lateral level, direction and balance, trim
- at selected airspeeds (use of power)
- during speed and configuration changes
- use of instruments for precision
- airmanship

Exercise 5: Climbing

- entry, maintaining the normal and max rate climb, levelling off
- levelling off at selected altitudes
- en-route climb (cruise climb)
- climbing with flap down

- recovery to normal climb
- maximum angle of climb
- use of instruments for precision
- airmanship

Exercise 6: Descending

- entry, maintaining and levelling off
- levelling off at selected altitudes
- glide, powered and cruise descent (including effect of power and airspeed)
- side slipping (or suitable types)
- use of instruments for precision flight
- airmanship

Exercise 7: Turning

- entry and maintaining medium level turns
- resuming straight flight
- faults in the turn – (in correct pitch, bank, balance)
- climbing turns
- descending turns
- slipping turns (or suitable types)
- turns onto selected headings, use of gyro heading indicator and compass
- use of instruments for precision

Exercise 8A: Slow flight

NOTE: The objective is to improve the pilot's ability to recognise inadvertent flight at critically low speeds and provide practice in maintaining the touring motor glider in balance while returning to normal airspeed.

- safety checks
- introduction to slow flight
- controlled flight down to critically slow airspeed
- application of full power with correct attitude and balance to achieve normal climb speed
- airmanship

Exercise 8B: Stalling

- airmanship
- safety checks
- symptoms
- recognition
- clean stall and recovery without power and with power
- recovery when a wing drops
- approach to stall in the approach and in the landing configurations, with and without power, recovery at the incipient stage

Exercise 9: Take-off and climb to downwind position

- pre-take-off checks
- into wind take-off
- safeguarding the nosewheel (if applicable)
- crosswind take-off
- drills during and after take-off
- short take-off and soft field procedure/techniques including performance calculations
- noise abatement procedures
- airmanship

Exercise 10: Circuit, approach and landing

- circuit procedures, downwind, base leg
- powered approach and landing
- safeguarding the nosewheel (if applicable)
- effect of wind on approach and touchdown speeds, use of flaps
- crosswind approach and landing
- glide approach and landing
- short landing and soft field procedures/techniques
- flapless approach and landing
- wheel landing (tail wheel aeroplanes)
- missed approach/go around
- noise abatement procedures
- airmanship

Exercise 9/10E: Emergencies

- abandoned take-off
- engine failure after take-off
- mislanding / go-around
- missed approach

In the interests of safety it will be necessary for pilots trained on nosewheel touring motor gliders to undergo dual conversion training before flying tail wheel touring motor gliders, and vice-versa.

Exercise 11: Advanced turning

- steep turns (45°), level and descending
- stalling in the turn and recovery
- recoveries from unusual attitudes, including spiral dives
- airmanship

Exercise 12: Forced landing without power

- forced landing procedure
- choice of landing area, provision for change of plan
- gliding distance
- descent plan

- key positions
- engine cooling
- engine failure checks
- use of radio
- base leg
- final approach
- landing
- actions after landing
- airmanship

Exercise 13: Precautionary landing

- full procedure away from aerodrome to break-off height
- occasions necessitating
- in-flight conditions
- landing area selection
  - normal aerodrome
  - disused aerodrome
  - ordinary field
- circuit and approach
- actions after landing
- airmanship

Exercise 14A: Navigation

Flight planning

- weather forecast and actuals
- map selection and preparation
  - choice of route
  - airspace structure
  - safety altitudes
- calculations
  - magnetic heading(s) and time(s) en-route
  - fuel consumption
  - mass and balance
  - mass and performance
- flight information
  - NOTAMS etc.
  - radio frequencies
  - selection of alternate aerodromes
- touring motor glider documentation
- notification of the flight
  - pre-flight administrative procedures

- flight plan form

Departure

- organisation of cockpit workload
- departure procedures
  - altimeter settings
  - ATC liaison in regulated airspace
  - setting heading procedure
  - noting of ETAs
- maintenance of altitude and heading
- revisions of ETA and heading
- log keeping
- use of radio
- minimum weather conditions for continuation of flight
- in-flight decisions
- transiting controlled/regulated airspace
- diversion procedures
- uncertainty of position procedure
- lost procedure

Arrival, aerodrome joining procedure

- ATC liaison in regulated airspace
- altimeter setting
- entering the traffic pattern
- circuit procedures
- parking
- security of touring motor glider
- refuelling
- closing of flight plan, if appropriate
- post-flight administrative procedures

Exercise 14B: Navigation problems at lower levels and in reduced visibility

- actions prior to descending
- hazards (e.g. obstacles, and terrain)
- difficulties of map reading
- effects of wind and turbulence
- vertical situational awareness (avoidance of controlled flight into terrain)
- avoidance of noise sensitive areas
- joining the circuit
- bad weather circuit and landing

Exercise 14C: Radio navigation (basics)

Use of Global Navigation Satellite Systems

- Selection of waypoints
- to/from indications, orientation
- error messages

Use of VHF direction finding (VHF/DF)

- availability, AIP, frequencies
- R/T procedures and ATC liaison
- obtaining a QDM and homing

Use of en-route/terminal radar

- availability, AIP
- procedures and ATC liaison
- pilot's responsibilities
- secondary surveillance radar
  - transponders
  - code selection
  - interrogation and reply

AMC No 3 to FCL.210 and FCL.215

Syllabus of theoretical knowledge for the balloon pilot licence and the sailplane pilot licence

The syllabi for the theoretical knowledge instruction and examination for the LPL(B) and LPL(S) in AMC to FCL.115 and FCL.120 should be used for the BPL and SPL, respectively.

AMC to FCL.215 and FCL.220
Theoretical knowledge examination and skill test for the PPL

1. THEORETICAL KNOWLEDGE EXAMINATION

   1.1 The examinations should comprise a total of 120 multiple choice questions covering all the subjects.

   1.2 Communication practical classroom testing may be conducted.

   1.3 The period of 18 months mentioned in FCL.215(c) should be counted from the end of the calendar month when the applicant first attempted an examination.

2. SKILL TEST

   2.1 Further training may be required following any failed skill test or part thereof. There should be no limit to the number of skill tests that may be attempted.

3. CONDUCT OF THE TEST

   3.1 If the applicant chooses to terminate a skill test for reasons considered inadequate by the flight examiner, the applicant should retake the entire skill test. If the test is terminated for reasons considered adequate by the flight examiner, only those sections not completed should be tested in a further flight.

   3.2 Any manoeuvre or procedure of the test may be repeated once by the applicant. The flight examiner may stop the test at any stage if it is considered that the applicant's demonstration of flying skill requires a complete retest.

   3.3 An applicant should be required to fly the aircraft from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member. Responsibility for the flight should be allocated in accordance with national regulations.

AMC No1 to FCL.205.S (c)
Contents of the proficiency check for the extension of SPL privileges to exercise commercial privileges on a glider

1. The applicant should be responsible for the flight planning and should ensure that all equipment and documentation for the execution of the flight are on board.

2. An applicant should indicate to the FE the checks and duties carried out. Checks should be completed in accordance with the authorised check list for the sailplane on which the test is being taken.

FLIGHT TEST TOLERANCE

2. The applicant should demonstrate the ability to:

   - operate the sailplane within its limitations;
   - complete all manoeuvres with smoothness and accuracy;
   - exercise good judgment and airmanship;
   - apply aeronautical knowledge; and

– maintain control of the sailplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

4. The applicant should demonstrate his / her skill in at least the winch or aerotow method of launching.

SECTION 1 **PRE-FLIGHT OPERATIONS AND DEPARTURE**	
Use of checklist, airmanship (control of sailplane by external visual reference), lookout, apply in all sections.	
a	Pre-flight sailplane (daily) inspection, documentation and weather brief
b	Verifying in-limits mass and balance and performance calculation
c	Passenger briefing
d	Sailplane servicing compliance
e	Pre take-off checks
SECTION 2 **LAUNCH METHOD** Note: At least for one of the three launch methods all the mentioned items are fully exercised during the skill test.	
SECTION 2 (A) WINCH OR CAR LAUNCH	
a	Signals before and during launch, including messages to winch driver
b	Initial roll, take-off climb
c	Adequate profile of winch launch
d	Launch failures (simulated)
e	Situational awareness
SECTION 2 (B) AEROTOW LAUNCH	
a	Signals before and during launch, including signals to / communications with tow plane pilot for any problems
b	Initial roll, take-off climb
c	Launch abandonment (simulation only or 'talk-through')
d	Correct positioning during straight flight and turns
e	Out of position and recovery
f	Correct release from tow
g	Lookout and airmanship through whole launch phase
SECTION 2 (C) **SELF LAUNCH (SLS only)**	
a	ATC liaison – compliance
b	Aerodrome departure procedures
c	Initial roll, take-off climb
d	Simulated engine failure after take off
e	Engine shut down and stowage
f	Lookout and airmanship through whole launch phase
SECTION 3 **GENERAL AIRWORK**	
a	Maintain straight and level flight ; attitude and speed control
b	Co-ordinated medium (30° bank) turns, look out procedures and collision avoidance
c	Turning on to selected headings visually and with use of compass
d	Flight at high angle of attack (critically low airspeed)
e	Clean stall and recovery
f	Spin avoidance and recovery
SECTION 4 **CIRCUIT, APPROACH AND LANDING**	
a	Aerodrome circuit joining procedure

b	Collision avoidance - look out procedures
c	Pre landing checks
d	Circuit, approach control, landing
e	Precision landing (simulation of out-landing - short field)
f	Cross wind landing if suitable conditions available

SUBPART I

ADDITIONAL RATINGS

AMC to FCL.800

Aerobatic Rating – Theoretical knowledge and flying training

1. The aim of the aerobatic training is to qualify licence holders to perform aerobatic manoeuvres.

2. The approved training organisation should issue a certificate of satisfactory completion of the instruction for the purpose of licence endorsement.

THEORETICAL KNOWLEDGE

3. The theoretical knowledge syllabus should cover the revision and/or explanation of:

3.1. Human factors and body limitation

- spatial disorientation
- airsickness
- body stress and g-forces, positive and negative
- effects of grey- and black out

3.2. Technical subjects

- legislation affecting aerobatic flying to include environmental and noise subjects
- principles of aerodynamics to include slow flight, stalls and spins, flat and inverted
- general airframe and engine limitations

3.3. Limitations applicable to the specific aircraft category (and type)

- airspeed limitations (aeroplane, helicopter, touring motor glider, sailpane – as applicable)
- symmetric load factors (type related - as applicable)
- rolling g's (type related – as applicable)

3.4. Aerobatic manoeuvres and recovery

- entry parameters
- planning systems and sequencing of manoeuvres
- rolling manoeuvres
- over the top manoeuvres
- combination manoeuvres
- entry and recovery from developed spins, flat, accelerated and inverted

3.5. Emergency procedures

- recovery from unusual attitudes
- drills to include use of parachutes and aircraft abandonment

FLYING TRAINING

4. The exercises of the aerobatic flying training syllabus should be repeated as necessary until the applicant achieves a safe and competent standard. The training should be tailored to the category of aircraft and limited to the permitted manoeuvres of that type of aircraft. The exercises should comprise at least the following practical training items (if permitted):

4.1. Aerobatic manoeuvres

- Chandelle
- Lazy Eight
- Aileron Roll
- Barrel Roll
- Rudder Roll
- Loop and inverted loop
- Immelmann
- Split S

4.2. Confidence manoeuvres and recoveries

- slow flights and stalls
- steep turns
- side slips
- engine restart in flight (if applicable)
- spins and recovery
- recovery from spiral dives
- recovery from unusual attitudes

AMC to FCL.805

Towing Rating – Theoretical knowledge and flying training

1. The aim of the towing instruction is to qualify licence holders to tow banners or sailplanes.
2. The approved training organisation should issue a certificate of satisfactory completion of the training for the purpose of licence endorsement.

THEORETICAL KNOWLEDGE

TOWING OF SAILPLANES

3.1. The theoretical knowledge syllabus should cover the revision and/or explanation of:

- regulations concerning towing flights
- equipment for the towing activity
- sailplane towing techniques including:
  - signals and communication procedures
  - take off (normal / cross wind)
  - in flight launch procedures
  - descending on tow
  - sailplane release procedure
  - tow rope release procedure
  - landing with tow rope connected
  - emergency procedures during tow including equipment malfunctions
  - specific sailplane towing safety procedures
- flight performance of the applicable aircraft type when towing sailplanes

- look out and collision avoidance
- performance data sailplanes including:
  - suitable speeds
  - stall characteristics in turns

THEORETICAL KNOWLEDGE

BANNER TOWING

3.2. The theoretical knowledge syllabus should cover the revision and/or explanation of:

- regulations concerning banner towing
- equipment for the banner towing activity
- ground crew coordination
- pre-flight procedures
- banner towing techniques including:
  - take-off launch
  - banner pickup manoeuvres
  - flying with banner in tow
  - release procedure
  - landing with banner in tow
  - emergency procedures during tow including equipment malfunctions
  - specific banner towing safety procedures
- flight performance of the applicable aircraft type when towing a heavy/light banner
- prevention of stall during towing operations

FLYING TRAINING

TOWING OF SAILPLANES

4.1. The exercises of the towing training syllabus for towing sailplanes should be repeated as necessary until the student achieves a safe and competent standard and should comprise at least the following practical training items:

- take off procedures (normal and cross wind take offs)
- 360° circles on tow with a bank of 30° and more
- descending during launch
- release procedure of the sailplane
- landing with the tow rope connected
- tow rope release procedure in-flight
- emergency procedures (simulation)
- signals and communication during tow

FLYING TRAINING

BANNER TOWING

4.2. The exercises of the towing training syllabus for banner towing should be repeated as necessary until the student achieves a safe and competent standard and should comprise at least the following practical training items:

- pickup manoeuvres
- towing in-flight techniques
- release procedures
- flight at critically low airspeeds
- maximum performance manoeuvres
- emergency manoeuvres to include equipment malfunctions (simulated)
- specific banner towing safety procedures
- go around with the banner connected
- loss of engine power with the banner attached (simulated)

AMC No 1 to FCL.815

Mountain rating – Theoretical knowledge and flying training

THEORETICAL KNOWLEDGE	
WHEEL RATING	SKI RATING
1.*Equipements*	
W.1.1 Personal equipment for the flight.	S.1.1 Personal equipment for the flight.
W.1.2 Aircraft equipment for the flight.	S.1.2 Aircraft equipment for the flight.
2. Take off techniques	
W 2.1 Technique for approach and landing on a mountain surface	S.2.1 Technique for approach and landing on a mountain surface. S.2.2 Landing technique on skis.
W 2.2 Rolling techniques of the aircraft on various runway profiles.	S.2.3 Rolling techniques of the aircraft on skis regarding the snow nature
W 2.3 Take-off technique	S.2.4 Take-off technique on snowed surfaces.
W 2.4 Aircraft and engine performances regarding altitude.	S.2.5. Aircraft and engine performances regarding altitude.
3. *Rules*	
W 3.1 Mountain rating	S 3.1 Mountain rating
W 3.2 Overflight rules	S 3.2 Overflight rules
W 3.3 Surfaces classification	S 3.3 Surfaces classification
W 3.4 Pilot in command responsibilities	S 3.4 Pilot in command responsibilities
W 3.5 Responsibilities of the surface manager	S 3.5 Responsibilities of the surface manager
W 3.6 The flight plan	S.3.6 The flight plan S.3.7 Certification of the ski mounted aeroplanes

4. Meteorology	
W 4.1 Movements of the air mass	S.4.1 Movements of the air mass
W 4.2 Flight consequences	S.4.2 Flight consequences
W 4.3 Relief effect on the movement of the air	S.4.3 Relief effect on the movement of the air

masses	masses
W 4.4 Altimetry	S.4.4 Altimetry
5. Human Performance and Limitations	
W.5.1 The cold	S.5.1 The cold
W.5.2 The food	S.5.2 The food.
W.5.3 The hypoxia	S.5.3 The hypoxia.
W.5.4 The radiance	S.5.4 The radiance
W.5.5 The thirst	S.5.5 The thirst
W.5.6 The tiredness	S.5.6 The tiredness
W.5.7 Turbulence effects in altitude	S.5.7 Turbulence effects in altitude
6. Navigation	
W.6.1 Progress of the flight	S.6.1 Progress of the flight
W.6.2 Dead reckoning	S.6.2 Dead reckoning
W.6.3 The path over the relief	S.6.3 The path over the relief
W.6.4 Progress in the valleys	S.6.4 Progress in the valleys
W.6.5 Detection of the man-made obstacles (high voltage lines, chairlifts, cables, etc.).	S.6.5 Detection of the man-made obstacles (high voltage lines, chairlifts, cables, etc.).
7. Specific items	
	S.7.1 Knowledge of the snow and assessment of the snow nature in flight
	S.7.2 Knowledge of the glacier.
	S.7.3 Life of the glacier.
	S.7.4 Formation of the cracks.
	S.7.5 Snow bridges
	S.7.6 Avalanches
8. Survival	
	S.8.1 Ways of survival (psychological aspects).
	S.8.2 Use of the equipments.
	S.8.3 Removal the snow on the aircraft.
	S.8.4 Building of a shelter
	S.8.5 How to feed
FLIGHT INSTRUCTION	
WHEEL RATING	SKI RATING
I.- Navigation	
W.I.1 Flight techniques in the valleys.	S.I.I Flight techniques in the valleys.
W.I.2 Flight over mountain passes and ridges	S.I.2 Flight over mountain passes and ridges.
W.I.3 U-turn in narrow valleys.	S.I.3 U-turn in narrow valleys.
W.I.4 Choice of the flight path regarding aerology	S.I.4 Choice of the flight path regarding aerology
W.I.5 Map reading	S.I.5 Map reading
II. – *Arrival and reconnaissance*	

W.II.1 Choice of the altitude of arrival.	S.II.1 Choice of the arrival altitude.
W.II.2 Choice of the arrival and overfly pattern.	S.II.2 Choice of the arrival and overflight pattern.
W.II.3 Choice of the landing pattern.	S.II.3 Description of the circuit pattern.
W.II.4 Aero logy awareness	S.II.4 Aerology awareness.
W.II.5 Evaluation of the length of the runway.	S.II.5 Evaluation of the runway length.
W.II.6 Evaluation of the runway profile (slope and banking).	S.II.6 Evaluation of the runway profile (slope and banking).
W II.7 Collision avoidance.	S.II.7 Collision avoidance .
W II.8 Definition of the references for the landing (touch down point).	S.II.8 Definition of the references for the landing (touch down point).
W II.9 Determination of the circuit pattern altitude.	S.II.9 Determination of the circuit pattern altitude.
W II.10 Choice of the final speed regarding the runway profile.	S.II.10 Choice of the final speed regarding the runway profile.
	S.II.11 Choice of the take-off axis
	S.II.12. Choice of the landing axis
	S.II.13 Choice of the parking area
	S.II.14 Observation of the obstacles on the ground (cracks, snow bridges, avalanches).
	S.II.15 Estimation of the snow nature.
	S.II.16 Observation of the way to reach a refuge from the landing area
III – Approach and landing	
W.III.1 Landing pattern altitude.	S.III.1 Landing pattern altitude.
W III.2 Precision of flight along the landing path.	S.III.2 Precision of flight along the landing path..
W III.3 Corrections on the landing path (accuracy and effectiveness).	S.III.3 Corrections on the landing path (accuracy and effectiveness).
	S.III.4 Landing (precision of the flare and of the touch down point).
W III.4 Landing (precision of the flare and of the touch down point).	S.III.5 Taxi of the aircraft on various snows and various runway profiles.
W III.5 Taxiing (use of the engine power) on various profiles	S.III.6 Parking of the aircraft regarding the snow nature and the profile of the apron.
W III.6 Parking of the aircraft (regarding the runway profile, the traffic, etc.).	S.III.7 Turns on various snow nature and various ground profiles.
IV. – Take-off	
W IV.1 Safety checks before take-off.	S. IV.1 Safety checks before take-off.
	S.IV.2 Lining up on the runway.
	S.IV.3 Control of the runway axis during take-off S.IV.4 Choice and use of the visual references of the take-off axis.
W IV.2 Lining up on the runway.	S.IV.5 Acceleration regarding the nature of the snow.
W IV.3 Control of the runway axis during take-	S.IV.6 Short take-off.

off. W IV.4 Choice and use of the visual references of the take-off axis.	S.IV.7 Take-off avoiding the skid of the skis.
V. - Survival	
	S.V.1 Use of the snowshoes. S.V.2 Use of the markings.

AMC No 2 to FCL.815

Mountain rating – Skill test

The skill test for the issue or the renewal of a mountain rating should contain the following elements:

1. ORAL EXAMINATION

This part should be done before the flight and should cover all the relevant parts of the theoretical knowledge. At least one question for each of the following sections should be asked:

- Specific equipment for a mountain flight (personal and aircraft)
- Rules of the mountain flight

If the oral examination reveals a lack in theoretical knowledge, the flight test should not be done and the skill test is failed.

2. PRACTICAL SKILL TEST

During the flight test, two different sites from the departure airport should be used for recognition, approach, landing and take-off. For the Ski Mountain Rating, one of the two different sites should be a glacier.

SUBPART J
INSTRUCTORS

AMC to FCL.900
Instructor certificates

1 General

1.1 Nine instructor categories are recognised:

a) Light aircraft flight instructor certificate – aeroplane (LAFI(A)), helicopter (LAFI(H)), sailplane LAFI(S), balloon (LAFI(B));
b) Flight instructor certificate – aeroplane (FI(A)), helicopter (FI(H)), powered-lift (FI(PL)), airship (FI(As)), sailplane (FI(S)), balloon (FI(B));
c) Type rating instructor certificate – aeroplane (TRI(A)), helicopter (TRI(H)), powered-lift (TRI(PL));
d) Class rating instructor certificate – aeroplane (CRI(A));
e) Instrument rating instructor certificate – aeroplane (IRI(A)), helicopter (IRI(H)), airship (IRI(As)) ;
f) Synthetic flight instructor certificate – aeroplane (SFI(A), helicopter (SFI(H));
g) Multi crew Co-operation instructor certificate Aeroplanes (MCCI(A));
h) Synthetic training instructor certificate – aeroplane (STI(A)), helicopter (STI(H));
i) Mountain rating instructor certificate – (MI).

1.2 For categories a) to e) and for f) the applicant needs to hold a pilot licence. For categories f) to h) no licence is needed, only an instructor certificate.

1.3 A person may hold more than one instructor certificate.

2 Special conditions.

2.1 When new aircraft are introduced, requirements such as to hold a licence and rating equivalent to the one for which instruction is being given, or to have adequate flight experience, may not be possible to comply with. In this case, to allow for the first instruction courses to be given to applicants for licences or ratings for these aircraft, competent authorities need the possibility to issue a specific certificate that does not have to comply with the requirements established in this Subpart.

2.2 The competent authority should only give these certificates to holders of other instruction qualifications. As far as possible, preference should be given to persons with experience in similar types or classes of aircraft.

2.3 The certificate should ideally be limited in validity to the time needed to qualify the first instructors for the new aircraft in accordance with this Subpart, but in any case it should not exceed the 3 years established in the rule.

AMC to FCL.920

Instructor competencies and assessment

1 Training should be both theoretical and practical. Practical elements should include the development of specific instructor skills, particularly in the area of teaching and assessing threat and error management and CRM.

2 The training and assessment of instructors should be made against the following performance standards:.

Competence	**Performance**	**Knowledge**
Prepare resources	- Ensure adequate facilities - Prepares briefing material	- Understand objectives - Available tools

	- Manage available tools	- Competency based training methods
Create a climate conducive to learning	- Establishes credentials, role models appropriate behaviour - Clarifies roles - States objectives - Ascertains and supports trainees needs	- Barriers to learning - Learning styles -
Present knowledge	- Communicates clearly - Creates and sustains realism - Looks for training opportunities	- Teaching methods -
Integrate TEM/CRM	- Makes TEM/CRM links with technical training	- Human Factors, TEM/CRM -
Manage Time to achieve training objectives	- Allocate time appropriate to achieving competency objective	- Syllabus time allocation -
Facilitate learning	- Encourage trainee participation - Motivating, patient, confident, assertive manner - Conducts one-to-one coaching - Encourages mutual support -	- Facilitation - How to give constructive feedback - How to encourage trainees to ask questions and seek advice
Assesses trainee performance	- Assess and encourage trainee self assessment of performance against competency standards - Makes assessment decision and provide clear feedback - Observes CRM behaviour	- Observation techniques - Methods for recording observations
Monitor and review progress	- Compare individual outcomes to defined objectives - Identify individual differences in learning rates - Apply appropriate corrective action	- Learning styles - Strategies for training adaptation to meet individual needs
Evaluate training sessions	- Elicits feedback from trainees. - Tracks training session processes against competence criteria - Keeps appropriate records -	- Competency unit and associated elements - Performance criteria
Report outcome	- Report accurately using only observed actions and events	- Phase training objectives - Individual versus systemic weaknesses

AMC to FCL.930.LAFI

Light Aircraft Flight Instructor (LAFI) training course

GENERAL

The aim of the LAFI course is to train leisure pilot licence holders to the level of competence defined in FCL.920 as instructor competencies.

The course should develop safety awareness throughout by teaching the knowledge, skills and attitudes relevant to the LAFI task including at least the following:

a. refresh the technical knowledge of the student instructor;

b. train the student instructor to teach the ground subjects and air exercises;

c. ensure that the student instructor's flying is of a sufficiently high standard; and

d. teach the student instructor the principles of basic instruction and to apply them at the LPL level.

COURSE CONTENT

With the exception of the section on Teaching and Learning, all the subject detail contained in the Ground and Flight Training Syllabus is complementary to the LPL course syllabus and should already be known by the applicant.

The LAFI course should give particular stress to the role of the individual in relation to the importance of human factors in the man-machine and theoretical knowledge environment interaction. Special attention should be paid to the applicant's maturity and judgement including an understanding of adults, their behavioural attitudes and variable levels of education.

During the course, the applicants should be made aware of their own attitudes to the importance of flight safety. Improving safety awareness should be a fundamental objective throughout the course. It will be of major importance for the course of training to aim at giving applicants the knowledge, skills and attitudes relevant to a flight instructor's task.

On successful completion of the course and final test the applicant may be issued with a LAFI certificate.

The course consists of 2 parts:

- Part 1 Teaching and Learning instruction (should comply with AMC to FCL.920)
- Part 2 Flight instruction

PART 1

TEACHING AND LEARNING

The course should include at least 75 hours of theoretical knowledge and instructional techniques for the LAFI (A) and (H) certificate and at least 30 hours of theoretical knowledge and instructional techniques for the LAFI (S) and (B) certificate.

CONTENT OF THE INSTRUCTIONAL TECHNIQUES:

1 THE LEARNING PROCESS

Motivation
Perception and understanding
Memory and its application
Habits and transfer
Obstacles to learning
Incentives to learning
Learning methods
Rates of learning

2 THE TEACHING PROCESS

Elements of effective teaching
Planning of instructional activity
Teaching methods
Teaching from the 'known' to the 'unknown'
Use of 'lesson plans'

3 TRAINING PHILOSOPHIES

Value of a structured (approved) course of training
Importance of a planned syllabus
Integration of theoretical knowledge and flight instruction

4 TECHNIQUES OF APPLIED INSTRUCTION

a. Theoretical knowledge – Classroom instruction techniques
Use of training aids
Group lectures
Individual briefings
Student participation/discussion

b. Flight – Airborne instruction techniques
The flight/cockpit environment
Techniques of applied instruction
Post-flight and in-flight judgement and decision making

5 STUDENT EVALUATION AND TESTING

a. Assessment of student performance
The function of progress tests
Recall of knowledge
Translation of knowledge into understanding
Development of understanding into actions
The need to evaluate rate of progress

b. Analysis of student errors
Establish the reason for errors
Tackle major faults first, minor faults second
Avoidance of over criticism
The need for clear concise communication

6 TRAINING PROGRAMME DEVELOPMENT

Lesson planning
Preparation
Explanation and demonstration
Student participation and practice
Evaluation

7 HUMAN PERFORMANCE AND LIMITATIONS RELEVANT TO FLIGHT INSTRUCTION

Physiological factors
Psychological factors
Human information processing
Behavioural attitudes
Development of judgement and decision making

8 SPECIFIC HAZARDS INVOLVED IN SIMULATING SYSTEMS FAILURES AND MALFUNCTIONS IN THE AIRCRAFT DURING FLIGHT
Importance of 'touch drills'
Situational awareness
Adherence to correct procedures

9 TRAINING ADMINISTRATION

Flight/theoretical knowledge instruction records
Pilot's personal flying log book
The flight/ground curriculum
Study material
Official forms
Aircraft Flight/Owner's Manuals/Pilot's Operating Handbooks
Flight authorisation papers
Aircraft documents
The private pilot's licence regulations

PART 2

FLYING TRANING

An approved LAFI course should comprise at least the minimum hours of flight instruction as defined bin FCL.930.LAFI.

AIR EXERCISES

The air exercises are similar to those used for the training of LPL but with additional items designed to cover the needs of a flight instructor.

The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide: therefore the demonstrations and practices need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:

The applicant's progress and ability
The weather conditions affecting the flight
The flight time available
Instructional technique considerations
The local operating environment
Applicability of the exercises to the aircraft type

At the discretion of the instructors some of the exercises may be combined whereas some other exercises may be done in several flights.

It follows that student instructors will eventually be faced with similar inter-related factors. They should be shown and taught how to construct flight lesson plans, taking these factors into account, so as to make the best use of each flight lesson, combining parts of the set exercises as necessary.

GENERAL

The briefing normally includes a statement of the aim and a brief allusion to principles of flight only if relevant. An explanation is to be given of exactly what air exercises are to be taught by the instructor and practised by the student during the flight. It should include how the flight will be conducted with regard to who is to fly the aircraft and what airmanship, weather and flight safety aspects currently apply. The nature of the lesson will govern the order in which the constituent parts are to be taught.

The five basic components of the briefing will be:

1 The aim
2 Airmanship
3 The air exercise(s) briefing (what, and how and by whom)
4 Flight Briefing
5 Check of understanding

PLANNING OF FLIGHT LESSONS

The preparation of lesson plans is an essential pre-requisite of good instruction and the student instructor is to be given supervised practice in the planning and practical application of flight lesson plans.

GENERAL CONSIDERATIONS

The student instructor should complete flight training in order to practise the principles of basic instruction at the LPL level. During this training the student instructor occupies the seat normally occupied by the LAFI.

It is to be noted that airmanship is a vital ingredient of all flight operations. Therefore, in the following air exercises the relevant aspects of airmanship are to be stressed at the appropriate times during each flight.

FLIGHT INSTRUCTION SYLLABUS CONTENTS

C. Sailplanes

LONG BRIEFINGS AND AIR EXERCISES

1 Familiarisation with the sailplane
2 Procedures in the event of emergencies
3 Preparation for flight
4 Initial air experience
5 Effects of controls
6 Moderate Banking - coordination
7 Straight flying
8 Turning
9 Slow flight
10 Stalling
11A Spin recognition and avoidance
11B Developed spins – entry and recovery
12 Take-off / Launch methods
12A Winch launch
12B Aero tow
12C Self-launch
12D Car launch
13 Soaring Techniques
13A Thermalling
13B Ridge flying (if applicable during training and if possible at training site)
13C Wave flying (if applicable during training and if possible at training site)
14 Circuit, approach and landing
15 First solo
16 Advanced turning
17 Out-landings
18 Cross country flying
18A Flight Planning
18B In-Flight Navigation
18C Cross country soaring techniques

NOTE: Although exercise 11B is not required for the LPL course, it is a requirement for the LAFI course.

EXERCISE 1 - FAMILIARISATION WITH THE SAILPLANE

OBJECTIVE

To advise the student instructor on how to familiarise the student with the sailplane which will be used for the training and to test his position in the sailplane for comfort, visibility, and ability to use all controls and equipment.

BRIEFING AND EXERCISE

The student instructor has to:

- present the type of sailplane which will be used
- explain the cockpit layout – instruments and equipment
- explain the flight controls - stick, pedals, airbrakes, flaps, cable release, undercarriage
- check the position of the student on the seat for comfort, visibility, ability to use all controls
- explain the use of the harness
- demonstrate how to adjust the rudder pedal
- explain the differences when occupying the instructor's position
- explain all check lists, drills, controls

EXERCISE 2 - PROCEDURE IN THE EVENT OF EMERGENCIES

OBJECTIVE

To advise the student instructor on how to familiarise the student with the use of the parachute and how to explain the bail out procedure in case of emergency

BRIEFING

The student instructor has to:

- explain how to handle the parachute with care (transport, storage, drying after use)
- demonstrate the adjustment of the parachute harness
- explain the bail out procedure (especially from a sailplane in unusual attitude)
- explain the procedure for landing with a parachute in normal conditions and with a strong wind

EXERCISE 3 - PREPARATION FOR FLIGHT

OBJECTIVE:

To advise the student instructor on how to explain all the operations to be completed prior to flight

BRIEFING

The student instructor has to explain:

- the need for a pre-flight briefing
- the structure and the content of this briefing
- which documents are required on board
- which equipment are required for a flight
- how to handle the sailplane on the ground / how to move it/ how to tow it out, how to park it
- how to do the pre-flight external and internal checks
- the procedure for verifying in-limits mass and balance

- the pre-launch checks (check list)

PRACTICAL EXERCISE

The student instructor has to prepare and give a pre-flight briefing:

The student instructor has to demonstrate:

- that the required documents are on board
- that the equipment required for the intended flight is on board
- how to handle the sailplane on the ground / move it to the start position / tow it out, park it
- how to perform a pre-flight external and internal check
- how to verify in-limits mass and balance
- how to adjust harness as well as seat and/or rudder pedals
- the pre-launch checks

The student instructor also has to demonstrate:
- how to advise the student pilot in performing the pre-flight preparation
- how to analyse and correct pre-flight preparation errors as necessary

EXERCISE 4 - INITIAL AIR EXPERIENCE

OBJECTIVE

To advise the student instructor on how to familiarise the student with being in the air, with the area around the airfield, to note his/her reactions in this situation, and to draw his/her attention to safety and look-out procedures

BRIEFING

The student instructor has to explain:

- the area around the airfield
- the need for looking out

AIR EXERCISE

The student instructor has to:

- show the noteworthy references on the ground
- analyse the reactions of the student
- check that the student looks out (safety)
- demonstrate airmanship

EXERCISE 5

PRIMARY EFECTS OF CONTROLS

OBJECTIVE

To advise the student instructor on how to:

- demonstrate the primary effects of each control with the help of visual references
- train the student pilot to recognise when the sailplane is no longer in a normal attitude along one of the axes and to return to the normal attitude
- train continuous and efficient look-out during these exercises
- analyse and correct errors and student pilot mistakes as necessary

BRIEFING
The student instructor has to define the axes of a sailplane

The student instructor has to explain:

- the look-out procedures
- the visual references along each axis
- the primary effects of controls when laterally level
- the relationship between attitude and speed
- the use of flaps
- the use of airbrakes

AIR EXERCISE

The student instructor has to demonstrate:

the visual references in flight

- the primary effect of the elevator
- the relationship between attitude and speed (inertia)
- the primary effect of rudder on the rotation of the sailplane around the vertical axis
- the primary effect of ailerons on banking
- the effect of airbrakes (including changes in pitch when airbrakes are extended or retracted)
- the effects of flaps (provided the sailplane has flaps)
- the look-out procedures during all the exercises
- airmanship

The student instructor also has to demonstrate:

- how to advise the student pilot to recognise the primary effects of each control
- how to analyse and correct errors as necessary

EXERCISE 6 - BANKING AT MODERATE ANGLE - COORDINATION

OBJECTIVE

To advise the student instructor on secondary effects of controls and on how to teach the student to coordinate ailerons and ruder in order to compensate for the adverse yaw effect.

BRIEFING

The student instructor has to explain:

- the secondary effects of controls

- the adverse yaw effect
- how to compensate for the adverse yaw
- the further effect of the rudder (roll)

AIR EXERCISE

The student instructor has to demonstrate

- the adverse yaw effect with a reference on ground
- the further effect of the rudder (roll)
- the coordination of ruder and aileron controls to compensate for the adverse yaw effects
- moderate banking (20 to 30 °) and return to the level flight

The student instructor also has to demonstrate:
- how to advise the student pilot to coordinate ailerons and rudder
- how to analyse and correct errors as necessary

EXERCISE 7 - STRAIGHT FLYING

OBJECTIVE

To advise the student instructor on how to train the student to maintain straight and level flight with a constant heading without slipping and skidding.

BRIEFING

The student instructor has to:

-explain how to maintain straight flight

-explain airspeed limitations (Vne)

-explain the pitch stability of the sailplane

-explain the effect of trimming

AIR EXERCISE

The instructor student has to demonstrate:

- maintaining straight flight
- inherent pitch stability
- the control of the sailplane in pitch, including use of trim with visual references and airspeed
- how to perform the instrument monitoring
- the control of level attitude with visual references
- the control of the heading with a visual reference on the ground
- the look-out procedures during all the exercises

The student instructor also has to demonstrate:
- how to advise the student pilot to maintain straight and level flight
- how to analyse and correct errors as necessary
- airmanship

EXERCISE 8 - TURNING

OBJECTIVE

To advise the student instructor on how to teach students to fly turns and circles with a moderate constant bank of about 30 ° with constant attitude (speed) and coordinated flight.

BRIEFING

The student instructor has to explain:

- the forces on the sailplane during a turn
- the need to look out before turning
- the sequences of a turn (entry, stabilizing, exiting)
- the common faults during a turn
- how to turn on to selected headings, use of compass
- the use of instruments (ball indicator and/or slip string) for precision

AIR EXERCISE

The student instructor has to demonstrate:

- the look-out procedure before turning
- entering a turn (correction of adverse yaw)
- the stabilisation of a turn (keeping the attitude and compensating the induced roll)
- the exit from a turn
- the most common faults in a turn
- turns on to selected headings (use landmarks as reference)
- use of instruments (ball indicator and/or slip string) for precision

The student instructor also has to demonstrate:
- how to advise the student pilot to fly a turn / circle with a moderate bank
- how to analyse and correct errors as necessary

EXERCISE 9 - SLOW FLIGHT

OBJECTIVE

To advise the student instructor on how to improve the student's ability to recognise inadvertent flight at critically low speeds (high angle of attack) and to provide practice in maintaining the sailplane in balance while returning to normal attitude (speed).

BRIEFING

The student instructor has to explain

- the characteristics of slow flight
- the risks of stalling

AIR EXERCISE

The student instructor has to:

- Check that the airspace below the sailplane is free of other aircraft before starting the exercise

The student instructor has to demonstrate:

- a controlled flight down to critically high angle of attack (slow airspeed), and draw the attention of the student to the nose up attitude, reduction of noise, reduction of speed
- a return to the normal attitude (speed)
- airmanship

The student instructor also has to demonstrate:
- how to advise the student pilot to recognise inadvertent flight at critically low speeds
- how to provide practice in maintaining the sailplane in balance while returning to normal attitude
- how to analyse and correct errors as necessary

EXERCISE 10 - STALLING

OBJECTIVE

To advise the student Instructor on how to improve the student's ability to recognize a stall and to recover from it. This includes stall from a level flight and stalls when a wing drops.

BRIEFING

The student instructor has to explain

- the mechanism of a stall
- the effectiveness of the controls at the Stall
- pre-stall symptoms, recognition and recovery
- factors affecting the stall (importance of the angle of attack, high speed stall)
- effect of flaps if any on the sailplane
- the effects of unbalance at the stall safety checks
- stall symptoms, recognition and recovery
- recovery when a wing drops
- approach to stall in the approach and in the landing configurations - recognition and recovery from accelerated stalls

AIR EXERCISE

The student instructor has to check that the airspace below the sailplane is free of other aircraft/traffic before starting the exercise The student instructor should demonstrate:

- stall from a level flight
- pre-stall symptoms, recognition and recovery
- stall symptoms, recognition and recovery
- recovery when a wing drops
- approach to stall in the approach and in the landing configurations
- recognition and recovery from accelerated stalls
- stalling and recovery at the incipient stage with 'instructor induced' distractions

The student instructor also has to demonstrate:
- how to improve the student pilot's ability to recognise a stall and to recover from it
- how to analyse and correct errors as necessary
- airmanship

NOTE: Consideration is to be given to manoeuvre limitations and references to The Owners'/Flight manual or Pilot's Operating Handbook in relation to Mass and Balance limitations. These factors are also covered in the next exercise.

EXERCISE 11A - SPIN RECOGNITION AND AVOIDANCE

OBJECTIVES

To advise the student Instructor on how to improve the student's ability to recognize a spin at the incipient stage and to recover from it.

BRIEFING

The student instructor has to explain

- why a sailplane spins
- how to recognise the symptoms of a spin (not to be confused with spiral dive)
- what are the parameters influencing the spin
- how to recover from a spin

AIR EXERCISE

The student instructor has to check that the airspace below the sailplane is free of other aircraft/traffic before starting the exercise

The student instructor has to demonstrate:

- stalling and recovery at the incipient spin stage (stall with excessive wing drop, about 45°)
- airmanship

The student instructor also has to:

- make sure that the student recognises the spin entry
- make sure that the student pilot is able to recover from the spin
- check if the student still reacts properly if the instructor induces distractions during the spin entry
- demonstrate how to analyse and correct errors as necessary

NOTE: Consideration of manoeuvre limitations and the need to refer to the sailplane manual and mass and balance calculations.

EXERCISE 11B - DEVELOPED SPINS – ENTRY AND RECOVERY

OBJECTIVES:

To advise the student instructor on how to recognize a developed spin and to recover from it

BRIEFING

The student instructor has to explain

- the spin entry
- the symptoms of a real spin and the recognition and identification of Spin Direction
- the spin recovery
- use of controls
- effects of flaps (flap restriction applicable to type)
- the effect of the C of G upon spinning characteristics
- the spinning from various flight attitudes
- the sailplane limitations
- airmanship – safety checks
- common errors during recovery

AIR EXERCISE

The student instructor has check that the airspace below the sailplane is free of other aircraft/traffic before starting the exercise

The student instructor has to demonstrate:

- safety checks
- the spin entry
- the recognition & identification of the spin direction
- the spin recovery (reference to Flight Manual)
- the use of controls
- the effects of flaps (restrictions applicable to aeroplane type)
- spinning and recovery from various flight attitudes
- airmanship

The student instructor also has to demonstrate:

- how to improve the student pilot's ability to recognise a spin and how to recover from it
- how to analyse and correct errors as necessary

EXERCISES 12 - TAKE OFF/ LAUNCH METHODS

NOTE: the student instructor has to teach at least one of the following launch methods: winch launch, aero tow, self launch.

EXERCISE 12A

WINCH LAUNCH

OBJECTIVES

To advise the student instructor on how to teach winch launches and on how to make sure that their student will manage an aborted launch.

BRIEFING

The student instructor has to explain:

- the signals and /or communication before and during launch
- the use of the launching equipment
- the pre-take-off checks
- the procedure for into wind take-off
- the procedure for crosswind take-off
- the optimum profile of winch launch and limitations
- the launch failure procedures

AIR EXERCISE

The student instructor has to demonstrate:

- the use of the launching equipment
- the pre-take-off checks
- the into wind take-off
- the crosswind take-off
- the optimum profile of winch launch and limitations
- the procedure in case of cable break or aborted launch, launch failure procedures
- airmanship

The student instructor also has to demonstrate:

- how to teach the student pilot to perform safe winch launches
- how to teach the student pilot to manage an aborted launch (different altitudes)
- how to analyse and correct errors as necessary

EXERCISE 12B - AERO TOW

OBJECTIVES

To advise the student instructor on how to teach aero towing and on how to make sure that their student will manage an aborted launch.

BRIEFING

The student instructor has to explain:

- the signals and/or communication before and during launch
- the use of the launch equipment
- the pre-take-off checks
- the procedure for into wind take-off

- the procedure for crosswind take-off
- the procedure on tow – straight flight / turning / slip stream
- the recovery from out-of-position on tow
- the procedures in case of launch failure and abandonment
- the descending procedure on tow (towing aircraft and sailplane)

AIR EXERCISE

The student instructor has to demonstrate:

- the signals before and during launch
- the use of the launch equipment
- the pre-take-off checks
- the procedure for into wind take-off
- the procedure for a crosswind take-off
- the procedures on tow – straight flight / turning / slip stream
- the recovery from out-of-position on tow
- the procedure in case of launch failure and abandonment
- the descending procedure on tow
- airmanship

The student instructor also has to demonstrate:

- how to teach the student pilot to perform safe aero tow launches
- how to teach the student pilot to manage an aborted launch
- how to analyse and correct errors as necessary

BRIEFING EXERCISE 12C - SELF LAUNCH

OBJECTIVES

To advise the student instructor on how to teach launching with a self launching sailplane and on how to make sure that their student will manage an aborted launch.

BRIEFING

The student instructor has to explain:

- the engine extending and retraction procedures
- the engine starting and safety precautions
- the pre-take-off checks
- the noise abatement procedures
- the checks during and after take-off
- the into wind take-off
- the crosswind take-off
- the procedure in case of power failure
- the procedure in case of abandoned take-off

- the maximum performance (short field and obstacle clearance) take-off
- the short take-off and soft field procedure / techniques and performance calculations

AIR EXERCISE

The student instructor has to demonstrate:

- the engine extending and retraction procedures
- the engine starting and safety precautions
- the pre-take-off checks
- the noise abatement procedures
- the checks during and after take off
- the into wind take-off
- the crosswind take-off
- the power failures / procedures
- the procedure in case of abandoned take-off
- the maximum performance (short field and obstacle clearance) take-off
- the short take-off and soft field procedure / techniques and performance calculations
- airmanship

The student instructor also has to demonstrate:

- how to teach the student pilot to perform safe self launches
- how to teach the student pilot to manage an aborted launch (different altitudes)
- how to analyse and correct errors as necessary

EXERCISE 13 - SOARING TECHNIQUES

NOTE: If the weather conditions during the instructor training do not allow the practical training of soaring techniques, all items of the air exercises have to be discussed and explained during a long briefing exercise only.

EXERCISE 13A - THERMALLING

OBJECTIVES

To advise the student instructor on how to teach their students to recognise and detect thermals, on how to join a thermal and on how to look out, in order to avoid mid-air collisions.

BRIEFING

The student instructor has to explain

- the look-out procedures
- the detection and recognition of thermals
- the use of audio soaring instruments
- the procedure for joining a thermal and giving way
- how to fly in close proximity to other sailplanes

- how to centre in thermals
- how to leave thermals

AIR EXERCISE

The student instructor has to demonstrate

- the look-out procedures
- the detection and recognition of thermals
- the use of audio soaring instruments
- the procedure for joining a thermal and giving way
- the procedure for flying in close proximity to other sailplanes
- the centering in thermals
- the procedure for leaving thermals
- airmanship

The student instructor also has to demonstrate:
- how to improve the student pilot's ability to recognise and detect thermals
- how to improve the student pilot's ability to join a thermal and how to look out
- how to analyse and correct errors as necessary

EXERCISE 13B - RIDGE FLYING

OBJECTIVE

To advise the student instructor on how to teach their students to fly safely on ridges, to control their speed, and to apply the rules in order to avoid mid-air collisions.

BRIEFING

The student instructor has to explain:

- the look-out procedures
- the ridge flying rules
- the recognition of optimum flight path
- speed control

AIR EXERCISE (if applicable during training and, if possible, at training site)

The student instructor has to demonstrate:

- the look-out procedures
- the practical application of ridge flying rules
- the recognition of optimum flight path
- speed control
- airmanship

The student instructor also has to demonstrate:
- how to teach the student pilot to fly safely on ridges
- how to analyse and correct errors as necessary

EXERCISE 13C - WAVE FLYING

OBJECTIVES

To advise the student instructor on how to introduce students to wave flying and to teach them to fly safely at high altitude.

BRIEFING

The student instructor has to explain:

- the look-out procedures
- the techniques to be used to accede to a wave
- the speed limitations with increasing height
- the risks of hypoxia and the use of oxygen

AIR EXERCISE (if applicable during training and if possible at training site)

The student instructor has to demonstrate:

- the look-out procedures
- the wave access techniques
- the speed limitations with increasing height
- the use of oxygen (if available)
- airmanship

The student instructor also has to demonstrate:
- how to improve the student pilot's ability to recognise and detect waves
- how to teach the student pilot to fly safely in a wave
- how to analyse and correct errors as necessary

EXERCISE 14 - CIRCUIT APPROACH AND LANDING

OBJECTIVES

To advise the student instructor on how to teach their students to fly a safe circuit approach and to land the sailplane

BRIEFING

The student instructor has to explain:

- the procedures for rejoining the circuit
- the procedures for collision avoidance and the look -out techniques
- the normal circuit procedures, downwind, base leg
- the effect of wind on approach and touchdown speeds
- the visualisation of a reference point
- the approach control and use of airbrakes
- the use of flaps (if applicable)

- the procedures for normal and crosswind approach and landing

AIR EXERCISE

The student instructor has to demonstrate:

- the procedures for rejoining the circuit
- the procedures for collision avoidance and the look- out techniques
- the standard circuit and contingency planning (e.g. running out of height)
- the effect of wind on approach and touchdown speeds
- the visualisation of an aiming point
- the approach control and use of airbrakes
- the use of flaps (if applicable)
- the procedures for normal and crosswind approaches and landings
- airmanship

The student instructor also has to demonstrate:
- how to teach the student pilot to fly a safe circuit approach
- how to improve the student pilot's ability to perform a safe landing
- how to analyse and correct errors as necessary

EXERCISE 15 - FIRST SOLO

OBJECTIVE

To advise the student instructor on how to prepare their students for the first solo flight.

BRIEFING

The student instructor has to explain

- the limitations of the flight (awareness of local area, restrictions)
- the use of required equipment

AIR EXERCISE

The student instructor has to

- check with another/more senior instructor if the student can fly solo
- monitor the flight
- debrief the flight with the student

EXERCISE 16 - ADVANCED TURNING

OBJECTIVES

To advise the student instructor on how to fly steep turns or circles (30-40° banking) at constant attitude (speed) and with the yaw string centred.

BRIEFING

The student instructor has to explain

- the relationship between banking and speed
- how to master steep turns or circles
- the unusual attitudes which can occur (stalling/spinning, spiral dive)
- how to recover from these unusual attitudes

AIR EXERCISE

The student has to demonstrate:

- steep turns (45°) at constant speed and with the yaw string centred
- common errors (slipping, skidding)
- unusual attitudes and how to recover from them
- airmanship

The student instructor also has to demonstrate:
- how to teach the student pilot to fly steep turns or circles
- how to analyse and correct errors as necessary

EXERCISE 17 - OUT-LANDINGS

NOTE: If the weather conditions during the instructor training do not allow the practical training of outlanding procedures (a touring motor glider may be used) all items of the air exercise have to be discussed and explained during a long briefing exercise only.

OBJECTIVE

To advise the student instructor on how to teach students to select an out-landing field, to fly the circuit and how to master the unusual landing situation.

BRIEFING

The student instructor has to explain

- the gliding range at max L/D
- the engine re-start procedures (only for self-launching and self-sustaining sailplanes)
- the selection of a landing area
- the circuit judgement and key positions
- the circuit and approach procedures
- the actions to be done after landing

AIR EXERCISE

The student instructor has to demonstrate:

- precision landings on the airfield
- the gliding range
- the procedures for joining, arrival and circuit at a remote aerodrome
- the selection of an out-landing area
- the procedures for circuit and approach on an out-landing field, procedures

- the actions to be done after landing
- airmanship

The student instructor also has to be trained:
- how to advise the student pilot to do perform a safe outlanding
- how to master an unusual landing situation
- how to analyse and correct errors as necessary

EXERCISE 18 - CROSS COUNTRY FLYING

NOTE: If the weather conditions during the instructor training do not allow a cross country training flight the items of the air exercise have to be discussed and explained during a long briefing exercise only.

EXERCISE 18A - FLIGHT PLANNING

OBJECTIVES

To advise the student instructor on how plan and prepare a cross-country flight

BRIEFING

The student instructor has to explain

- the weather forecast and current situation
- the selection of the amount of water to be carried as a function of the weather forecast
- the method for selecting a task, taking into account the average speed to be expected
- the map selection and preparation
- the NOTAMS, airspace considerations
- the radio frequencies (if applicable)
- the pre-flight administrative procedures
- the procedure for filing a flight plan where required
- alternate aerodromes and landing areas

EXERCISE 18B - IN-FLIGHT NAVIGATION

OBJECTIVES

To advise the student instructor on how to teach performing a cross-country flight

BRIEFING

The student instructor has to explain

- how to maintain track and re-route if necessary
- the altimeter settings
- the use of radio and phraseology
- the in-flight planning
- the procedures for transiting regulated airspace / ATC liaison where required

- the procedure in case of uncertainty of position
- the procedure in case of becoming lost

AIR EXERCISE

The student instructor has to demonstrate:

- maintaining track and re-routing if necessary
- altimeter settings
- the use of radio and phraseology
- in-flight planning
- procedures for transiting regulated airspace / ATC liaison where required
- uncertainty of position procedure
- lost procedure
- use of additional equipment where required
- joining, arrival and circuit procedures at remote aerodrome
- airmanship

The student instructor also has to demonstrate:
- how to teach the student pilot to perform a cross-country flight
- how to analyse and correct errors as necessary

EXERCISE 18C - CROSS-COUNTRY SOARING TECHNIQUES

OBJECTIVES

To advise the student instructor on the techniques for an efficient cross country flight

BRIEFING

The student has to explain

- the speed to fly at maximal L/D ratio
- the speed to fly to maximise the cruise speed (Mc Cready theory)
- how to select the optimal track (efficient use of cloud streets etc)
- how to calculate the final glide
- how to perform a safe outlanding

AIR EXERCISE

The student has to demonstrate:

- a cross-country flight
- the selection of the optimal track (efficient use of cloud streets, etc)
- the use of the MacCready ring
- use of final glide computers
- how to reduce risk and to react to potential dangers
- how to plan and perform an outlanding
- airmanship

The student instructor also has to demonstrate:
- how to teach the student pilot techniques for an efficient cross country flight
- how to analyse and correct errors as necessary

AMC to FCL.940.LAFI(a)(2)

Light Aircraft Flight Instructor (LAFI) refresher seminar

1 LAFI refresher seminars made available in member States should have due regard to geographical location, numbers attending, and periodicity throughout the State concerned.

2 Such seminars should run for at least one day, and attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops.

3 Some experienced LAFIs/FIs currently involved with flying training and with a practical understanding of the revalidation requirements and current instructional techniques should be included as speakers at these seminars.

4 The attendance form will be completed and signed by the organiser of the seminar as approved by the Authority, following attendance and satisfactory participation by the LAFI.

5 The content of the LAFI refresher seminar should be selected from the following:

a. new and/or current applicable rules/regulations with emphasis on knowledge of Part-FCL

b. teaching and learning;

c. instructional techniques;

d. the role of the instructor;

e. national regulations (as applicable);

f. human performance and limitations;

g. flight safety, incident and accident prevention;

h. airmanship;

i. legal aspects and enforcement procedures;

j. navigational skills including new/current radio navigation aids;

l. weather related topics including methods of distribution.

m. any additional topic

Formal sessions should allow for a presentation time of 45 minutes, with at least 15 minutes for questions and discussion. The use of visual aids is recommended, with inter-active video/beamer sessions and other modern teaching aids (where available) for break-out groups/workshops.

AMC to FCL.930.FI

FI training course

GENERAL

The aim of the FI course is to train aircraft licence holders to the level of competence defined in FCL.920.

The course should develop safety awareness throughout by teaching the knowledge, skills and attitudes relevant to the FI task including at least the following:

a. refresh the technical knowledge of the student instructor;

b. train the student instructor to teach the ground subjects and air exercises;

c. ensure that the student instructor's flying is of a sufficiently high standard; and

d. teach the student instructor the principles of basic instruction and to apply them at the PPL, SPL or SPL level.

FLIGHT INSTRUCTION

In the case of the FI(A), FI(H) or FI(As) the remaining five hours in FCL.930.FI (b)(2) may be mutual flying (that is, two applicants flying together to practice flight demonstrations).

The skill test is additional to the course training time.

CONTENT

The course consists of 2 parts:

- Part 1, teaching and learning instruction that should comply with AMC to FCL.920
- Part 2, flight instruction that should have the following content:

D. Sailplanes

For the FI certificate (sailplanes) training course the AMC to FCL.930LAFI may be used.

AMC to FCL.940.FI(a)(2)

Flight Instructor (FI)/Instrument Rating Instructor (IRI) refresher seminar

1 FI/IRI refresher seminars made available in member States should have due regard to geographical location, numbers attending, and periodicity throughout the State concerned.

2 Such seminars should run for at least two days, and attendance from participants will be required for the whole duration of the seminar including breakout groups/workshops. Different aspects, such as inclusion of participants holding certificates in other categories of aircraft should be considered.

3 Some experienced FIs/IRIs currently involved with flying training and with a practical understanding of the revalidation requirements and current instructional techniques should be included as speakers at these seminars.

4 The attendance form will be completed and signed by the organiser of the seminar as approved by the Authority, following attendance and satisfactory participation by the FI/IRI.

5 The content of the FI/IRI refresher seminar should be selected from the following:

a. new and/or current rules/regulations, with emphasis on knowledge of Part-FCL and Part-OPS requirements;

b. teaching and learning;

c. instructional techniques;

d. the role of the instructor;

e. national regulations (as applicable);

f. human factors;

g. flight safety, incident and accident prevention;

h. airmanship;

i. legal aspects and enforcement procedures;

j. navigational skills including new/current radio navigation aids;

k. teaching instrument flying; and

l. weather related topics including methods of distribution.

m. any additional topic selected by the Authority.

Formal sessions should allow for a presentation time of 45 minutes, with 15 minutes for questions. The use of visual aids is recommended, with interactive video and other teaching aids (where available) for breakout groups/workshops.

GM to FCL.940.FI(a)(2) and to FCL.940.LAFI

Flight instructor and Light Aircraft Flight Instructor certificate – Revalidation and renewal form

D. Sailplanes

<table>
<tr><th colspan="5">INSTRUCTIONAL FLYING EXPERIENCE</th></tr>
<tr><td colspan="5">Instructors applying for revalidation of the Flight Instructor / Light Aircraft Flight Instructor Certificate should enter the instructional hours and take offs flown during the preceding 36 months.</td></tr>
<tr><td colspan="2">SAILPLANE (hours/take-offs)</td><td colspan="3">TOURING MOTOR GLIDER (hours/take-offs)</td></tr>
<tr><td>DAY</td><td>NIGHT</td><td>DAY</td><td colspan="2">NIGHT</td></tr>
<tr><td colspan="5">Total instructional hours (preceding 36 months):</td></tr>
<tr><td colspan="5">Total instructional hours (preceding 12 months):</td></tr>
<tr><td colspan="5">Total amount of take-offs (preceding 36 months):</td></tr>
<tr><td colspan="5">Total amount of take-offs (preceding 12 months):</td></tr>
<tr><th colspan="5">FLIGHT INSTRUCTOR REFRESHER SEMINAR</th></tr>
<tr><td>1</td><td colspan="4">This is to certify that the undersigned attended a Flight Instructor / Light Aircraft Flight Instructor Seminar approved by the Authority</td></tr>
<tr><td>2</td><td colspan="4">Attendee’s personal particulars:</td></tr>
<tr><td colspan="2">Name:</td><td colspan="3">Address:</td></tr>
<tr><td colspan="2">Licence number:</td><td colspan="3">Exp. date of FI(S) / LAFI(S) certificate:</td></tr>
<tr><td>3</td><td colspan="4">Seminar particulars:</td></tr>
<tr><td colspan="2">Date/s of seminar:</td><td colspan="3">Place:</td></tr>
<tr><td>4</td><td colspan="4">Declaration by the responsible organiser:</td></tr>
<tr><td colspan="5">I certify that the above data are correct and that the Flight Instructor / Light Aircraft Flight Instructor Seminar was carried out as approved by the Authority.</td></tr>
<tr><td colspan="2">Date of approval:</td><td colspan="3">Name of organiser:
(block letters)</td></tr>
</table>

Date and place:	Signature:
5	**Declaration by the attendee:**
I confirm the data under 1 through 3	
Attendee's signature:	
PROFICIENCY CHECK	
.....(Name of applicant) has given proof of flying instructional ability during a proficiency check flight. This was done to my satisfaction.	
Flying time:	Sailplane/TMG used:
Main exercise:	
Name of FIE/FIE(LAFI):	Licence number:
Date and place:	Signature:

SUBPART K

EXAMINER CERTIFICATES

GM to FCL.1000

Examiner certificates – special conditions

When new aircraft are introduced, requirements such as to hold a licence and rating equivalent to the one for which the skill test is being conducted, or to have adequate flight experience, may not be possible to comply with. In this case, to allow for the first ratings for these aircraft to be issued to applicants, competent authorities need the possibility to issue a specific certificate that does not have to comply with the requirements established in this Subpart.

The competent authority should only give these certificates to holders of other examiner certificates. As far as possible, preference should be given to persons with experience in similar types or classes of aircraft, for example, in aircraft having the same kind and number of engines or rotors and of the same order of mass or technology.

The certificate should ideally be limited in validity to the time needed to qualify the first examiners for the new aircraft in accordance with this Subpart, but in any case it should not exceed the 3 years established in the rule.

AMC to FCL.1015

Examiner standardisation course

GENERAL

1. The competent authority may provide the course itself or through an arrangement with a training organisation. This arrangement should clearly state that the training organisation is acting under the management system of the competent authority.

    1.1 The course should last:

        1.1.1 For the LAFE, FE and FIE, at least one day, divided into theoretical and practical training;

        1.1.2 for other examiners, at least 5 days, divided into ground training and practical training in a simulator conducting role played proficiency checks and skill tests (at least 3 days).

CONTENT

2. The training should comprise:

    2.1 Theoretical training covering at least:

    a. The contents of AMC No 2 to FCL.1015 and the Flight Examiners Manual (FEM).

    b. Part-FCL and related AMCs and GM relevant to their duties;

    c. Part-OPS and related AMC and GM relevant to their duties;

    d. National requirements relevant to their examination duties.

    e. Fundamentals of human performance and limitations relevant to flight examination.

    f. Fundamentals of evaluation relevant to applicant’s performance.

    g. Quality System of the Approved Training Organisation;

    h. Multi-Crew Co-operation (MCC), Human Performance and Limitations, if applicable.

        2.1.1 Examiners should also be briefed on the protection requirements for personal data, liability, accident insurance and fees, as applicable in the Member State concerned.

2.1.2 All items above are core knowledge requirements for an examiner and are recommended as core course material. This core course may be studied before recommended examiner training is commenced. The core course may utilise any suitable training format.

2.2 Practical training consisting of at least:

a. Knowledge and management of the test for which the certificate is to be sought. These are described in the relevant Modules in the Flight Examiner Manual (FEM).

b. Knowledge of the administrative procedures pertaining to that test/check.

c. For an initial examiner certificate, practical training should include the examination of the test profile sought, consisting of the conduct of at least two test/check profiles in the role of examiner, including briefing, conduct of the skill test/proficiency check, assessment of the applicant to whom the test/check is given, debriefing and recording/documentation under the supervision of an examiner of the appropriate category on the applicable type. This training is conducted in the aircraft if approval for testing/checking in the aircraft is required. If examiner privileges in FSTD's are required, practical instruction in the use of FSTD(s) for testing/checking should also be completed.

2.2.1 The approved training organisation should determine any further training required before the candidate is presented to the Authority for the examiner assessment of competence.

2.2.2 For helicopters, if examiner privileges are to include the conduct of proficiency checks for the revalidation or renewal of an instrument rating, practical instruction should include the conduct of at least four instrument check profiles in the role of examiner, including briefing, conduct of the skill test/proficiency check, assessment of the applicant to whom the test/check is given, debriefing and recording/documentation under the supervision of an examiner of the appropriate category on the applicable type. This training is conducted in the aircraft if approval for testing/checking in the aircraft is required. If examiner privileges in both FSTD and aircraft are required, at least one of the instrument check profiles should be conducted in an FSTD.

2.3 For extension of an examiner certificate to further types (as required for TRE), further practical training on the new type may be required, consisting of the conduct of at least one test/check profile in the role of examiner on the new type, including briefing, conduct of the skill test/proficiency check, assessment of the applicant to whom the test/check is given, debriefing and recording/documentation under the supervision of an examiner of the appropriate category on the applicable type. A further examiner check on the new type may be required, which may be supervised by an inspector of the Authority or a suitably authorised senior examiner.

AMC 2 to FCL.1015

Standardisation arrangements for examiners

LIMITATIONS

1 An examiner should plan per working day not more than three test checks relating to PPL, CPL, IR, LAFI or class rating, not more than four tests / checks relating to LPL,SPL or GPL, or more than two tests/checks related to FI, CPL/IR and ATPL or more than four tests/checks relating to type rating.

2 An examiner should plan at least two hours for a LPL, SPL or BPL, three hours for a PPL, CPL, IR, LAFI or class rating test/checks, and at least four hours for FI, CPL/IR, MPL, ATPL or type rating tests/checks, including pre-flight briefing and preparation, conduct of the test/check, de-briefing and evaluation of the applicant and documentation.

3 An examiner should allow an applicant adequate time to prepare for a test/check, normally not more than one hour.

4 An examiner should plan a test/check flight so that the flight time in an aircraft or ground time in an approved synthetic training device is not less than:

a. 45 minutes for a LPL(B) / BPL, Basic LPL(A) / (H)

b. 90 minutes for LPL(A) / (H),PPL and CPL, including navigation section;

c. 60 minutes for IR, LAFI, FI and single pilot type/class rating; and

d. 120 minutes for CPL/IR, MPL and ATPL.

For the LPL(S) and SPL test /check flight the flight time must be sufficient to allow that all the items in each test/check section can be fully completed. If not all the items can be completed in one flight, additional flights have to be done.

PURPOSE OF A TEST/CHECK

5 Determine through practical demonstration during a test/check that an applicant has acquired or maintained the required level of knowledge and skill/proficiency;

6 Improve training and flight instruction in registered facilities, Approved Training Organisations by feedback of information from examiners concerning items/sections of tests/checks that are most frequently failed;

7 Assist in maintaining and, where possible, improving air safety standards by having examiners display good airmanship and flight discipline during tests/checks.

CONDUCT OF TEST/CHECK

8 An examiner will ensure that an applicant completes a test/check in accordance with Part-FCL requirements and is assessed against the required test/check standards.

9 Each item within a test/check section should be completed and assessed separately. A failed item is a failed section. The test/check schedule, as briefed, should not normally be altered by an examiner. A failed item is not always a failed section, e.g. type rating skill test where a failure of an item in a section does not fail the entire section, only the failed item is taken again.

10 Marginal or questionable performance of a test/check item should not influence an examiner's assessment of any subsequent items.

11 An examiner should verify the requirements and limitations of a test/check with an applicant during the pre-flight briefing.

12 When a test/check is completed or discontinued, an examiner should debrief the applicant and give reasons for items/sections failed. In the event of a failed or discontinued skill test or proficiency check, the examiner should provide appropriate advice to assist the applicant in re-tests/re-checks.

13 Any comment on, or disagreement with, an examiner's test/check evaluation/assessment made during a debriefing will be recorded by the examiner on the test/check report, and will be signed by the examiner and countersigned by the applicant.

EXAMINER PREPARATION

14 An examiner should supervise all aspects of the test/check flight preparation, including, where necessary, obtaining or assuring an ATC 'slot' time.

15 An examiner will plan a test/check in accordance with Part-FCL requirements. Only the manoeuvres and procedures set out in the appropriate test/check form will be undertaken. The same examiner should not re-examine a failed applicant without the agreement of the applicant.

EXAMINER APPROACH

16 An examiner should encourage a friendly and relaxed atmosphere to develop both before and during a test/check flight. A negative or hostile approach should not be used. During the test/check flight, the examiner should avoid negative comments or criticisms and all assessments should be reserved for the debriefing.

ASSESSMENT SYSTEM

17 Although test/checks may specify flight test tolerances, an applicant should not be expected to achieve these at the expense of smoothness or stable flight. An examiner should make due allowance for unavoidable deviations due to turbulence, ATC instructions, etc.. An examiner should terminate a test/check only for the purpose of assessing the applicant, or for safety reasons. An examiner will use one of the following terms for assessment:

a. A 'pass', provided the applicant demonstrates the required level of knowledge, skill/proficiency and, where applicable, remains within the flight test tolerances for the licence or rating; or

b. A 'fail' provided that any of the following apply:

i. the flight test tolerances have been exceeded after the examiner has made due allowance for turbulence or ATC instructions;

ii. the aim of the test/check is not completed;

iii. the aim of exercise is completed but at the expense of safe flight, violation of a rule or regulation, poor airmanship or rough handling;

iv. an acceptable level of knowledge is not demonstrated;

v. an acceptable level of flight management is not demonstrated; or

vi. the intervention of the examiner or safety pilot is required in the interest of safety.

c. A 'partial pass' in accordance with the criteria shown in the relevant skill test appendix of Part-FCL.

METHOD AND CONTENTS OF THE TEST/CHECK

18 Before undertaking a test/check, an examiner will verify that the aircraft or flight simulation synthetic training device intended to be used, is suitable and appropriately equipped for the test/check. Only aircraft or synthetic flight simulation training devices approved by the Authority for skill testing/proficiency checking may be used.

19 A test/check flight will be conducted in accordance with the aircraft flight manual (AFM) and, if applicable, the aircraft operators manual (AOM).

20 A test/check flight will be conducted within the limitations contained in the operations manual of a Approved Training Organisation and, where applicable, the operations manual of a registered facility.

21 Contents

a. A test/check is comprised of:

– oral examination on the ground (where applicable);

– pre-flight briefing;

– in-flight exercises; and

– post-flight debriefing

b. Oral examination on the ground should include:

– aircraft general knowledge and performance;

– planning and operational procedures; and

- other relevant items/sections of the test/check

c. Pre-flight briefing should include:

- test/check sequence;
- power setting and speeds, if applicable; and
- safety considerations

d. In-flight exercises will include:

- each relevant item/section of the test/check

e. Post-flight debriefing should include:

- assessment/evaluation of the applicant
- documentation of the test/check with the applicant's FI present, if possible.

22 A test/check is intended to simulate a practical flight. Accordingly, an examiner may set practical scenarios for an applicant while ensuring that the applicant is not confused and air safety is not compromised.

23 An examiner should maintain a flight log and assessment record during the test/check for reference during the post/flight debriefing.

24 An examiner should be flexible to the possibility of changes arising to pre-flight briefs due to ATC instructions, or other circumstances affecting the test/check.

25 Where changes arise to a planned test/check an examiner should be satisfied that the applicant understands and accepts the changes. Otherwise, the test/check flight should be terminated.

26 Should an applicant choose not to continue a test/check for reasons considered inadequate by an examiner, the applicant will be assessed as having failed those items/sections not attempted. If the test/check is terminated for reasons considered adequate by the examiner, only these items/sections not completed will be tested during a subsequent test/check.

27 At the discretion of the examiner, any manoeuvre or procedure of the test/check may be repeated once by the applicant. An examiner may terminate a test/check at any stage, if it is considered that the applicant's competency requires a complete re-test/re-check.

AMC to FCL.1020

Assessment of competence

GENERAL

The competent authority may nominate either one of its inspectors or a senior examiner to assess the competence of applicants for an examiner certificate.

DEFINITIONS

'Inspector' – The inspector of the Authority conducting the examiner competence assessment.

'Examiner Applicant' – The person seeking certification as an Examiner

'Candidate' – The person being tested/checked by the Examiner Applicant. This person may be a pilot for whom the test/check would be required, or the Inspector of the Authority who is conducting the Examiner Certification Acceptance Test.

CONDUCT OF THE ASSESSMENT

An inspector of the Authority, or a senior examiner, will observe all examiner applicants conducting a test on a 'candidate' in an aircraft for which examiner certificate is sought. Items from the related

'Syllabi for training course and skill tests/proficiency checks content for class/type rating' will be selected by the inspector for examination of the 'candidate' by the examiner applicant. Having agreed with the inspector the content of the test, the examiner applicant will be expected to manage the entire test. This will include briefing, the conduct of the flight, assessment and debriefing of the 'candidate'. The inspector will discuss the assessment with the examiner applicant before the 'candidate' is debriefed and informed of the result.

BRIEFING THE 'CANDIDATE'

4 The 'candidate' should be given time and facilities to prepare for the test flight. The briefing should cover the following:

a. the objective of the flight

b. licensing checks, as necessary

c. freedom for the 'candidate' to ask questions

d. operating procedures to be followed (e.g. operators manual)

e. weather assessment

f. operating capacity of 'candidate' and examiner

g. aims to be identified by 'candidate'

h. simulated weather assumptions (e.g. icing, cloud base)

i. contents of exercise to be performed

j. agreed speed and handling parameters (e.g. V-speeds, bank angle)

k. use of R/T

l. respective roles of 'candidate' and examiner (e.g. during emergency)

m. administrative procedures (e.g. submission of flight plan)

5 The examiner TRE applicant should maintain the necessary level of communication with the 'candidate'. The following check details should be followed by the examiner TRE applicant:

a. involvement of examiner in a multi-pilot operating environment

b. the need to give the 'candidate' precise instructions

c. responsibility for safe conduct of the flight

d. intervention by examiner, when necessary

e. use of screens

f. liaison with ATC and the need for concise, easily understood intentions

g. prompting the 'candidate' regarding required sequence of events (e.g. following a go-around)

h. keeping brief, factual and unobtrusive notes

ASSESSMENT

6 The examiner applicant should refer to the flight test tolerances given in the relevant skill test

Appendix.. Attention should be paid to the following points:

a. questions from the 'candidate'

b. give results of the test and any sections failed

c. give reasons for failure

DEBRIEFING

7 The examiner applicant should demonstrate to the inspector the ability to conduct a fair, unbiased, debriefing of the 'candidate' based on identifiable factual items. A balance between friendliness and firmness should be evident. The following points should be discussed with the 'candidate', at the applicant's discretion:

a. advise the candidate on how to avoid or correct mistakes

b. mention any other points of criticism noted

c. give any advice considered helpful

RECORDING/DOCUMENTATION

The examiner applicant should demonstrate to the inspector the ability to complete the relevant records correctly. These records may be:

a. the relevant skill test form

b. licence entry

c. notification of failure form

d. relevant company forms where the examiner has privileges of conducting operator proficiency checks

DEMONSTRATION OF THEORETICAL KNOWLEDGE

The examiner applicant should demonstrate to the inspector a satisfactory knowledge of the regulatory requirements associated with the function of an examiner.

AMC to FCL.1025

Validity, revalidation and renewal

The period of 3 years should be counted in addition to the remainder of the month of issue. If issued within the final 12 calendar months of validity of a previous examiner check, the period of validity should be extended from the date of issue until 3 years from the expiry date of that previous examiner check. When the examiner authorization is revalidated at the same time as his instructor certificate, the validity period of the instructor certificate may be aligned with the examiner certificate.

AMC No 1 to Appendix 12

Skill test and proficiency check form for the flight instructor certificate

D. Sailplanes

The AMC No 2 to Appendix 12 (Skill test and proficiency check form for the Light Aircraft Flight Instructor certificate) should be used.

AMC No 2 to Appendix 12

Skill test and proficiency check form for the Light Aircraft Flight Instructor certificate

C. Sailplanes

APPLICATION AND REPORT FORM FOR THE LAFI(S) / FI(S) SKILL TEST

1	**Applicants personal particulars:**			
Applicant's last name:		First names:		
Date of Birth:		Tel (Home):	Tel (Work):	
Address:		Country:		

2	**Licence Details**			
Licence type:		Number:		
TMG extension:				

3	**Pre-course flying experience**				
TOTAL HOURS	PIC hours	SAILPLANE (PIC hours and take offs)	TOURING MOTOR GLIDER (PIC hours and take offs)		

4	**Pre-entry flight test**	
I recommend .....for the Flight Instructor / Light Aircraft Flight Instructor Course.		
Name of ATO:		Date of flight test:
Name of LAFI /FI conducting the test (Block capitals):		
Licence number:		
Signature:		
5	**Declaration by the applicant**	

I have received a course of training in accordance with the syllabus approved by the Authority for the:					
Light Aircraft Flight Instructor Certificate LAFI(S)		Flight Instructor Certificate FI(S)			
Applicant's name: (Block Letters)			Signature:		
6	**Declaration by the chief flight instructor**				
I certify that ..... has satisfactorily completed an approved course of training for the					
Light Aircraft Flight Instructor Certificate LAFI(A)		Flight Instructor Certificate FI(S)			
in accordance with the relevant syllabus approved by the Authority.					
Flying hours during the course:			Take-offs during the course:		
Sailplanes / powered sailplanes / touring motor gliders used :					
Name of CFI:					
Signature:					
Name of ATO:					
7	**Light Aircraft Flight instructor / Flight Instructor examiner's certificate**				
I have tested the applicant according to Appendix 12					
A – LIGHT AIRCRAFT FLIGHT INSTRUCTOR / FLIGHT INSTRUCTOR EXAMINER'S ASSESSMENT in case of partial pass:					
Theoretical oral examination:			Skill test:		
Passed	***Failed***		***Passed***	***Failed***	
	I recommend further flight/ground training with a LAFI / FI before re-test				
	I do not consider further flight/theoretical instruction necessary before re-test *Tick as applicable*				
B – LIGHT AIRCRAFT FLIGHT INSTRUCTOR / FLIGHT INSTRUCTOR EXAMINER'S ASSESSMENT:					
	Light Aircraft Flight Instructor certificate / Flight Instructor certificate				
	Date:				
FIE's name (block letters):					
Signature:					
Licence number:			Date:		